4.11 User Services Tools

This section describes the User Services tools used by DAAC operators:

- 1. User Account Management GUI
- 2. Order Tracking
- 3. Data Dictionary Maintenance Tool
- 4. PDPS Subscription Editor
- 5. Database Installation and Maintenance Scripts
- 6. Database Replication Scripts
- 7. Landsat 7 Error Handling Tool
- 8. Restricting Access to ESDTs and Granules Scripts
- 9. Science Data Server Command Line Interface (SCLI)
- 10. Spatial Subscription Server GUI
- 11. Spatial Subscription Server Command Line Interface
- 12. Bulk Metadata Generation Tool
- 13. HEG Data Pool Order Status GUI
- 14. Data Pool Maintenance GUI
- 15. Order Manager GUI
- 16. Order Manager Command Line Utility

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4.11.1 User Account Management GUI

DAAC and SMC operators use the User Account Management GUI to process new account requests and manage existing ones. There are two versions of the User Account Management GUI – the DAAC version and the SMC version. This is because user profiles are read-only at the DAACs and read/write at the SMC. The main difference between the two is the SMC version contains two tabs and extra buttons to allow the operator to perform various account creations and update functions. Since the GUIs are nearly identical, this section is used to describe both. A clear indication is given, however, when a specified feature is not available on the DAAC GUI. DAAC operators are able to use the SMC GUI to maintain DAAC accounts by logging into the SMC and running the SMC GUI remotely.

Figure 4.11.1-1 is the User Account Manager GUI, which contains two tabs: the **Request Account** tab and the **Profile Account** tab. The **Request Account** tab allows operators to create ECS accounts. The **Profile Account** tab allows an operator to retrieve and update an existing account, delete an account, view an entire user profile, and view any modifications made to an account. The User Account Management GUI is used to perform the operator functions listed in Table 4.11.1-1 below.

Table 4.11.1-1. ECS Operator Functions Performed with the User Account Management GUI (1 of 2)

Operating Function	GUI/Command	Description	When and Why to Use				
Create a registered user account (only available at SMC)	 Request Account tab Fill out information (personal, addresses, account), then click Create Account button 	Creates an ECS account and a profile in Sybase	When a pending request is approved.				
Update an existing account (Only available at SMC)	 Profile Account tab Highlight the existing account to be updated Modify the information (personal, addresses, account), then click Apply Edit button 	 Updates account information in Sybase View Edit button allows the operator to view which information has been modified 	When account information needs to be updated.				
Delete account (only available at SMC)	Profile Account tab Highlight user account Click Delete Account button	 Deletes a registered user account (ECS account and profile) User account is deleted from the database table A pop up dialog box appears to confirm the operation 	When an account is no longer required by the user.				

Table 4.11.1-1. Common ECS Operator Functions Performed with the User
Account Management GUI (2 of 2)

Operating Function	GUI/Command	Description	When and Why to Use
View User Account Profile	Profile Account tab Highlight user account Click View Entire Profile button	Displays user's personal and account information, mailing, shipping and billing addresses	To obtain a summary of user account information on one "page."
Change Aster category (only available at SMC)	Profile Account tab Select DAR information tab Select new Aster category in the Aster Category Combo box Click Apply Edit button	Changes existing ASTER category to a new one	As necessary.
Delete Dar privilege (only available at SMC)	Profile Account tab Select DAR information tab Click Apply Edit button	Delete DAR privilege	As necessary.
Sort list of user profile or Request Account	Click the item label of title bar in the list box	Sort user profile or request list	As necessary.

4.11.1.1 Quick Start Using User Account Manager

To execute the User Account Manager GUI from the command line prompt, enter:

>EcMsAc<DAAC/SMC>RegUserGUIStart <mode>

Where:

DAAC is used if the GUI is installed at a DAAC and **SMC** is used if the GUI is installed at the SMC

<mode> is the ECS mode in which to operate (e.g., **OPS, TS1 or TS2**).

Refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series for a listing of EcMsAc<DAAC/SMC>RegUserGUIStart parameters.

4.11.1.2 User Account Management Main Screen

The User Account Manager GUI Main Screen is shown in Figure 4.11.1-1 with the Profile Account tab (SMC only) selected. From this screen, an operator has access to both the Request Account tab and the Profile Account tab information. The menu bar allows the operator to exit the application using the \underline{F} ile pull-down menu or obtain additional help through the \underline{H} elp pulldown menu. The Edit pulldown menu is not supported as of this release.

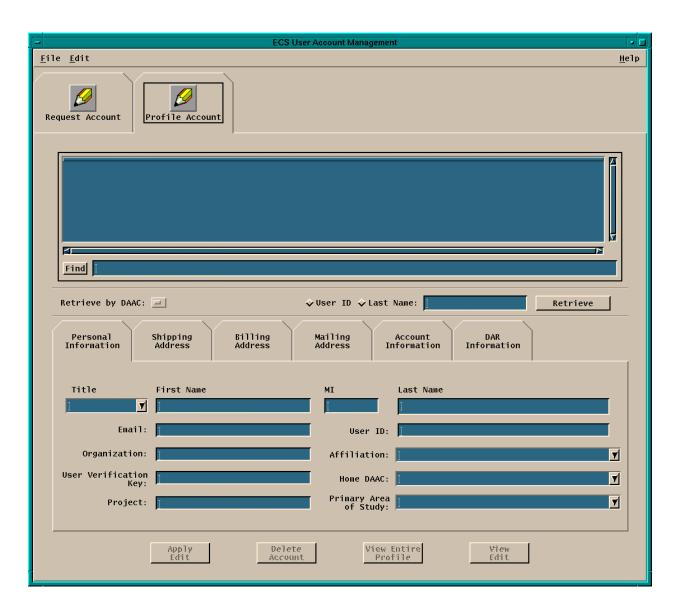


Figure 4.11.1-1. User Account Manager GUI Main Screen

4.11.1.2.1 Request Account Tab (SMC only)

The Request Account tab, shown in Figure 4.11.1-2, has five sub-tabs displaying information such as personal identification, mailing, billing, and shipping addresses, and account data.

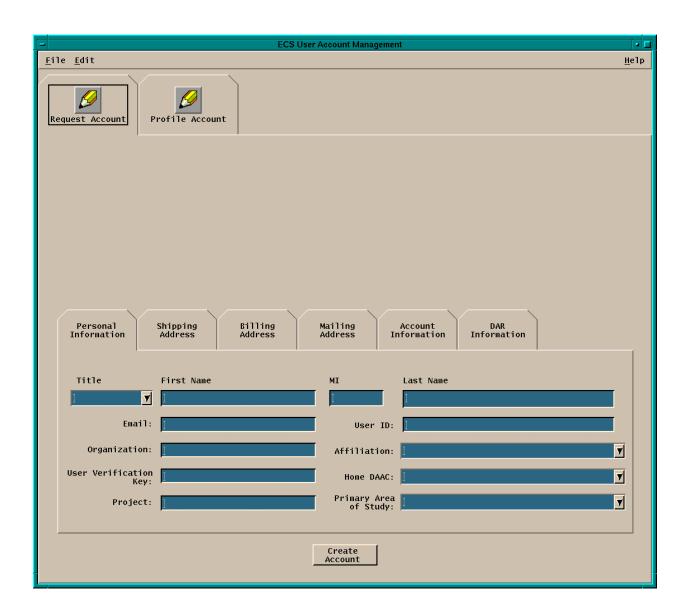


Figure 4.11.1-2. Request Account Tab with Edited Areas Highlighted

In addition, the following pushbutton is provided for the Request Account tab at the SMC:

Create Account -- creates an ECS user account. An ECS login userID and V0 Client authenticator are given to the user.

4.11.1.2.1.1 Personal Information Sub-tab

The Personal Information sub-tab of the Request Account tab, shown in Figure 4.11.1-2, is used to record personal information about the user requesting an account. Table 4.11.1-2 describes the data fields on this sub-tab.

Table 4.11.1-2. Personal Information Sub-tab Field Description

Field Name	Data Type	Size	Entry	Description
Retrieve	Selection	N/A	Optional	Retrieves summary information on users requesting an account by the status (selected with the Retrieve by Status button).
Retrieve by Status	Selection	N/A	Optional default: Pending	Retrieves summary information on users requesting an account by pending status, denied status, or all.
Title	Character	5	Optional, selection from drop-down list	Title (e.g., Mr., Dr., Mrs., Miss, etc.)
First Name	Character	20	Required	First name of user requesting an account.Retrieved from database table.
MI	Character	1	Optional	 Middle initial of user requesting an account. Retrieved from database table.
Last Name	Character	20	Required	Last name of user requesting an account.Retrieved from database table.
Email	Character	256	Required	Email address of user requesting an account.Retrieved from database table.
User ID	Character	12	Optional	ID number of user requesting an account.Retrieved from database table.
Organization	Character	31	Optional	Organization for a user (e.g., Raytheon).Retrieved from database table.
User Verification Key	Character	20	Optional (SMC - when creating a profile do not fill this field)	User Verification Key.Retrieved from database table.
Affiliation	Character	16	Optional, selection from drop-down list	Government, university, etc.Retrieved from database table.
Project	Character	30	Optional	EOS, etc. Retrieved from database table.
Home DAAC	Character	12	Required, selection from drop-down list	 DAAC the user requesting an account is assigned to. Retrieved from database table.
Primary Area of Study	Character	20	Optional, selection from drop-down list	Research field. Retrieved from database table.

4.11.1.2.1.2 Address Sub-tabs (Shipping, Billing, and Mailing)

These three sub-tabs provide fields specifying where to send the user's mail, shipments, and bills. Figure 4.11.1-3 is a sample of the Mailing Address sub-tab. Because these sub-tabs contain identical fields to collect the different address information, only one figure is being shown.

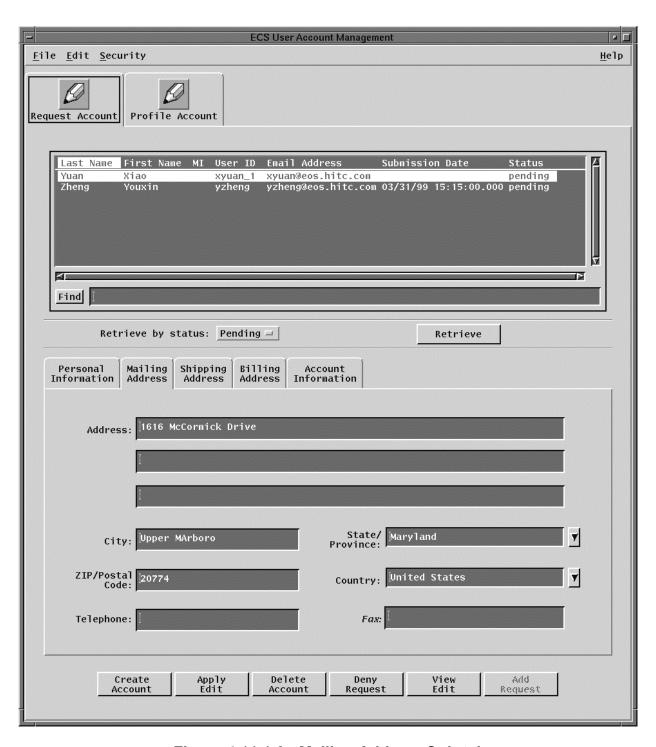


Figure 4.11.1-3. Mailing Address Sub-tab

Table 4.11.1-3 describes the fields contained in the Mailing, Shipping, and Billing Address subtabs.

Table 4.11.1-3. Mailing, Shipping, and Billing Address Tab Field Description

Field Name	Data Type	Size	Entry	Description
Title (Ship and Bill Tabs only)	Character	5	Optional	• Title.
First Name (Ship and Bill Tabs only)	Character	20	Optional	• First Name.
Middle Initial (Ship and Bill Tabs only)	Character	1	Optional	Middle initial.
Last Name (Ship and Bill Tabs only)	Character	20	Optional	• Last Name.
Address (1)	Character	32	Optional	 Street name address of user requesting an account, line 1. Retrieved from database table.
Address (2)	Character	32	Optional	Street name address of user requesting an account, line 2. Retrieved from database table.
Address (3)	Character	32	Optional	Street name address of user requesting an account, line 3. Retrieved from database table.
Organization	Character	31	Optional	Name of Organization.
City	Character	30	Optional	City name address of user requesting an account. Retrieved from database table.
State/Province	Character	20	Optional, selection from drop- down list	State name address of user requesting an account. Retrieved from database table.
Country	Character	30	Optional, selection from drop- down list	 Country name address of user requesting an account. Retrieved from database table.
ZIP/Postal Code	Character	15	Optional	 Zip code of user requesting an account. Retrieved from database table.
Telephone	Character	22	Optional	 Telephone number of user requesting an account. Retrieved from database table.
Fax	Character	22	Optional	 Facsimile (fax) number of user requesting an account. Retrieved from database table.

4.11.1.2.1.3 Account Information Sub-tab

The Account Information sub-tab shown in Figure 4.11.1-4 contains information such as date an account was created and revised, when the account expires, privilege level and media preference.

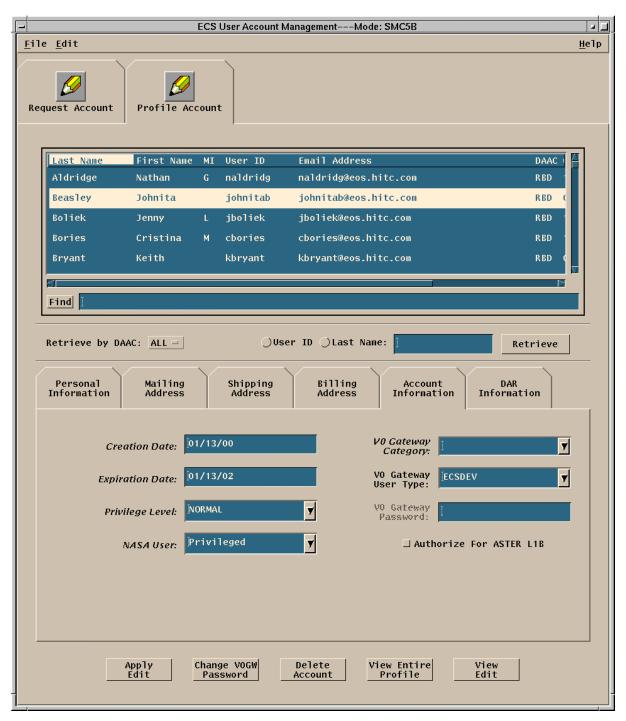


Figure 4.11.1-4. Account Information Sub-tab

Table 4.11.1-4 describes the Account Information sub-tab fields.

Table 4.11.1-4. Account Information Sub-tab Field Descriptions

Field Name	Data Type	Size	Entry	Description
Creation Date	Character	20	System generated	Date the account was created.
Expiration Date	Sybase smalldatetime	See Sybase references	Operator input, optional	Date the account expires.
Account Number	Character	20	System generates from SmartStream Accounting Software	ECS account number.
Privilege Level	Character	10	Operator input, optional selection from drop-down list	The highest priority level a user can give his or her order with the valid values being: Express, vhigh, high, normal and low.
NASA User	Character	1	Operator input, optional, selection from drop-down list	Identifies whether a user works for NASA and his/her level of access to NASA data. The valid values are "P" = Privileged NASA User, "R" = Regular NASA User, "N" = Non-NASA User.
V0Gateway User Type	Character	50	Required for create an account, operator input, selection from drop- down list	V0 client gateway user type, assigned by operator.
V0 Gateway Password	Character	20	Required for create an account, operator input	Used to generate V0 gateway unique authenticator, assigned by operator.
Access Privilege	Character	8	Operator input, optional selection from drop-down list	Access privilege such as access L1B data.

Figure 4.11.1-5 is the Print Dialog pop-up, which appears when an account has been created. Hitting the Ok button on this dialog generates a printout of the created account.

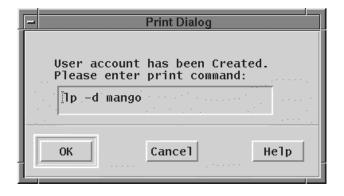


Figure 4.11.1-5. Print Dialog Popup When Account Created

4.11.1.2.2 Profile Account Tab

The Profile Account tab shown in Figure 4.11.1-6 provides the means for displaying/finding/sorting user information. It has six sub-tabs containing user information such as personal identification, addresses, and accounts information. The menu bar allows the operator to exit the application using the $\underline{\underline{F}}$ ile pulldown menu or obtain additional help using the $\underline{\underline{H}}$ elp pulldown menu.

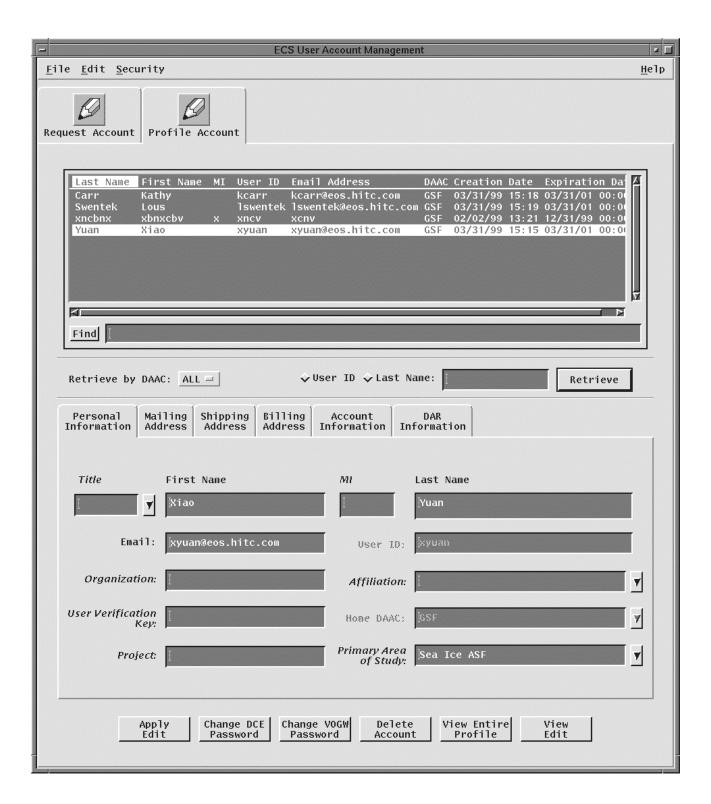


Figure 4.11.1-6. Profile Account Tab

In addition the following push buttons are provided:

• **Apply Edit** (available only at SMC) -- a confirmation dialog appears as shown in Figure 4.11.1-7 before allowing the operator to update the edited information to the user profile database

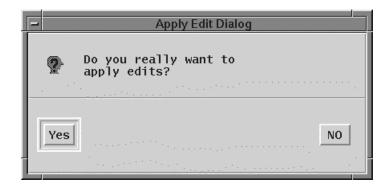


Figure 4.11.1-7. Apply Edit Dialogue Popup

- **Delete Account** (available only at SMC) -- a confirmation dialog appears before allowing the operator to delete an ECS account, including its profile from the database. This confirmation dialogue is similar to that shown in Figure 4.11.1-7.
- **View Entire Profile** view entire user profile in a one-page screen as shown in Figure 4.11.1-8. This screen contains the information from the Personal Information sub-tab, Mailing Address sub-tab, Shipping Address sub-tab, and Billing Address sub-tab.

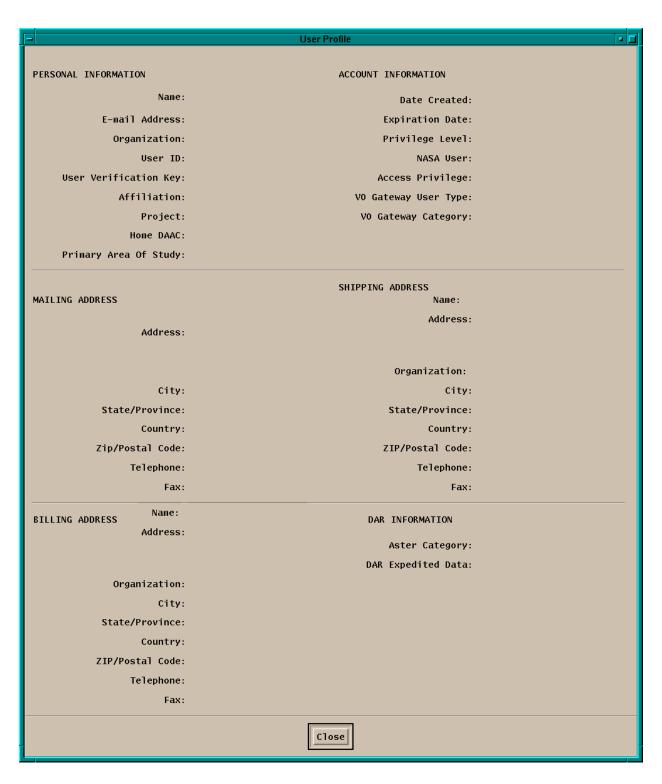


Figure 4.11.1-8. View Entire Profile Screen

• **View Edit** (available only at SMC) -- is used to view modifications made to a user's account. When this button is pressed, the tabs contain information that has been edited

and highlighted. For example, Figure 4.11.1-9 indicates one or more Mailing Address and Account Information fields have been edited. Note, however, the individual fields edited but are not highlighted.

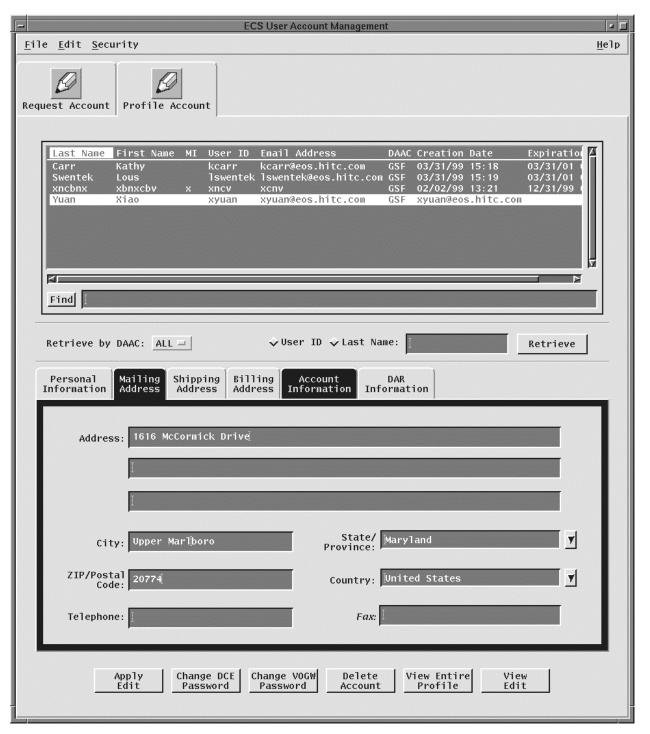


Figure 4.11.1-9. Profile Account with Edited Areas Highlighted

4.11.1.2.2.1 Personal Information Sub-tab

The Personal Information sub-tab of the Profile Account tab shown earlier in Figure 4.11.1-6 is used to record personal information about an existing account. Table 4.11.1-2 describes the fields on this sub-tab.

4.11.1.2.2.2 Address Sub-tabs (Mailing, Shipping, and Billing)

These three sub-tabs provide fields to fill in the mailing, shipping and billing address information for the user. The screens are identical to those shown earlier in the Request Account tab description.

4.11.1.2.2.3 Account Information Sub-tab

The Account Information sub-tab contains information similar to the information explained earlier in the Request Account tab description.

4.11.1.2.2.4 DAR Information Sub-tab

The Data Acquisition Request (DAR) Information sub-tab shown in Figure 4.11.1-10 contains information about a DAR user.

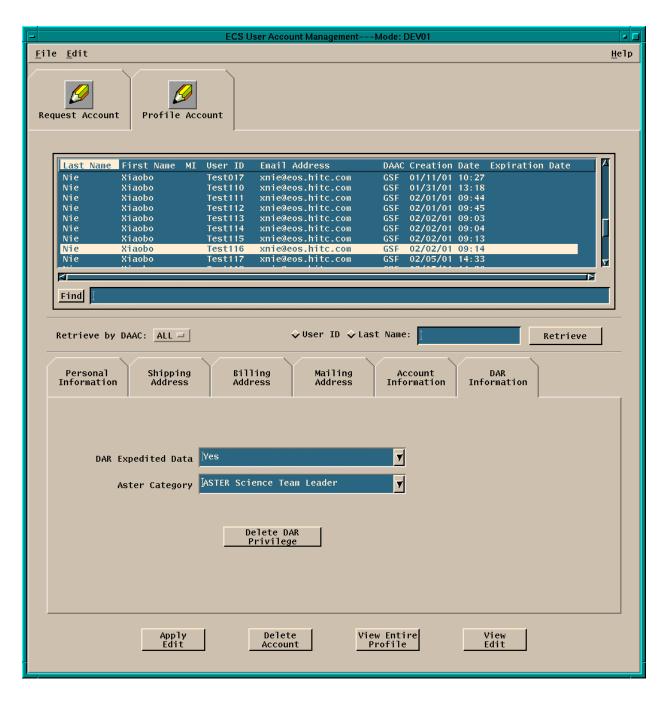


Figure 4.11.1-10. DAR Information Sub-tab

Table 4.11.1-5 describes the DAR Information sub-tab fields.

Table 4.11.1-5. Account Information Field Description

Field Name	Data Type	Size	Entry	Description
DAR expedited data	Logical (Yes/No)	See Sybase for details	Display, selection from drop-down list	"Yes" indicates user can request expedited data; "No" indicates user is not authorized to request expedited data.
Aster category	Character	20	Optional, operator input, selection from drop-down list	Aster category refers to Science user categories.
Delete DAR Privilege	Push button		Optional, operator input	 Set Aster category to 0. Set DAR expedited data to "No." Send an email to Japan, which indicates Aster category is 99. Note: 0 is a non-valid value (e.g., a deleted privilege), but a value of 99 is sent to ASTER via Email because 0 is non-valid. See previous description.

4.11.1.3 Required Operating Environment

For information on the operating environment, tunable parameters and environment variables of The User Account Manager refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series.

4.11.1.3.1 Interfaces and Data Types

User Account Manager exchanges data with Sybase, using Rogue Dbtools++ as the primary interface protocol.

4.11.1.4 Databases

The User Account Manager stores user profile data in table MsAcUsrProfile in the MSS database (Sybase). The MSS database for Release 6 is described in the *Management Support Subsystem Database Design and Schema Specifications*, 311-CD-627. The operator can identify individual data fields by examination of the descriptions in the documentation.

4.11.1.5 Special Constraints

There are no special constraints to running the DAAC User Account Manager. To run the SMC User Account Manager, the operator needs to have an SMC UNIX account and must be entered in the operator permissions database at the SMC. A DAAC operator is only able to view/modify records at the SMC associated with their home DAAC.

4.11.1.6 Outputs

Outputs from the Account Manager GUI are the information displayed on the screens described in section 4.11.1.2 and error messages.

4.11.1.7 Event and Error Messages

User Account Manager issues both status and error messages to screen and log file. Both event and error messages are listed in Appendix A.

4.11.1.8 Reports

The User Account Manager application does not generate reports.

4.11.2 Order Tracking

The Order Tracking tool provides the capability to track order status and its associated request status. The operator can retrieve orders by user name, order ID, or request ID. Order and request status are displayed on a graphic user interface (GUI). Operators can query orders by different states using pre-defined selections. The Order Tracking tool is used to perform the following operating functions listed in Table 4.11.2-1.

Table 4.11.2-1. Common ECS Operator Functions Performed with the Order Tracking Tool (1 of 2)

Operating	GUI	Description	When and Why to Use
Function			
Query order	 ECS Data Order Tracking GUI Query Order button 	Retrieves orders by Order ID, Request ID, User Name, External Request Id, External Request Id and User Id displays them in the window at the bottom of the screen. There are four types of orders that can be retrieved by using the Order Type combination box: All, Standard, On Demand, Standing on Demand or MTMGW.	To see the status of an order or its associated requests.
Filter orders	 ECS Data Order Tracking GUI Filter by Status toggle buttons Select All and Deselect All pushbuttons 	 Orders can be filtered by their status (e.g., pending, canceled) Orders can be filtered using all status selections Filter selections can be cleared 	To narrow the search for orders to what the operator wants.
Update order	ECS Data Order Tracking GUI Update Order button	Description of a selected order	To provide a description of a selected order.
Shipping information	 Query Requests button from the ECS Data Order Tracking GUI Shipping Information GUI 	Displays shipping information for an order	To determine the destination for an order.
Query request	Query Requests button on ECS Data Order Tracking GUI	Retrieves requests for an order	To see the status of a request.

Table 4.11.2-1. Common ECS Operator Functions Performed with the Order Tracking Tool (2 of 2)

Operating Function	GUI	Description	When and Why to Use		
Delete request	Delete Request button from the ECS Data Order Tracking GUI	Delete a request of the order	To delete the request for an order.		
Update request	Update request button from the ECS data Order tracking GUI	Description of a request	To provide a description for a request.		
Verify user selection	Select from user list Verify User Selection GUI	Displays user names and addresses	To verify the user selected is correct.		
Sort list of user orders or user requests	Click on the item label of title bar	Sort user order list or user request list	As needed.		

4.11.2.1 Quick Start Using Order Tracking

4.11.2.1.1 Invoking Order Tracking From the Command Line Interface

To execute Order Tracking from the command line prompt use:

>**EcMsAcOrderGUIStart < mode>** where:

<mode> is the ECS mode in which to run (e.g., OPS, TS1 or TS2).

Refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series, for a listing of EcMsAcOrderGUIStart.

4.11.2.2 ECS Data Order Tracking Main Screen

The Data Order Tracking main screen, shown in Figure 4.11.2-1, allows the operator to retrieve an order by user name, order ID, or request ID.

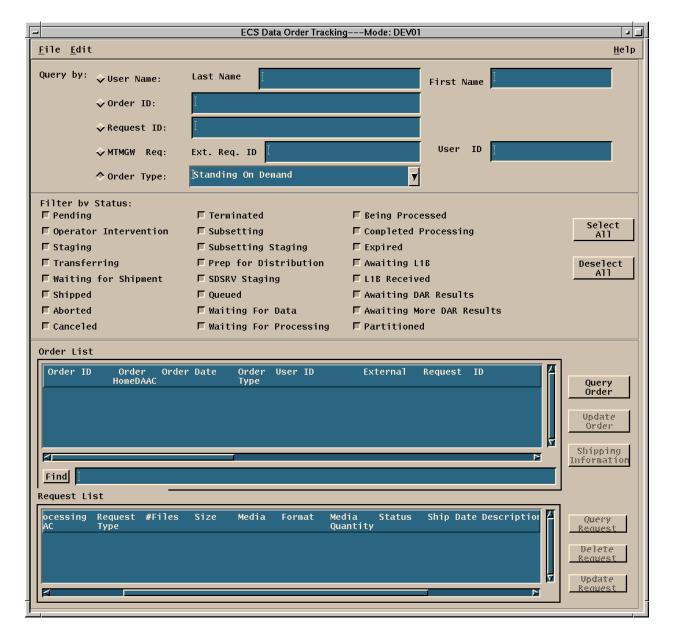


Figure 4.11.2-1. ECS Data Order Tracking

Table 4.11.2-2 describes the ECS Data Order Tracking fields.

Table 4.11.2-2. Order Tracking Main Screen Field Descriptions

<u> </u>				
Field Name	Data Type	Size	Entry	Description
Last Name	Character	20	Optional	User's last name.
First Name	Character	20	Optional	User's first name.
Order ID	Character	10	Optional	Unique order id.
Request ID	Character	10	Optional	Unique request id.
Ext. Request Id	Character	10	Optional	Unique external request id.
User Id	Character	10	Optional	Unique user id.
Order Type	Character	10		List of All, Standard, On Demand, Standing on Demand, MTMGW and Bundling Order.

The menu bar gives the operator the following selections: File, Edit and Help.

- <u>File</u> the only option available under this pull down menu is to exit the Order Tracking tool
- <u>Edit</u> provides "Clear Query Parameters" options to let the user clean all screen input
- <u>H</u>elp brings up help question mark, which can point to different buttons

The user can filter an order by status. The Filter by Status choices include:

- Pending
- Operator Intervention
- Staging
- Transferring
- Waiting for Shipment
- Shipped
- Aborted
- Canceled
- Terminated
- Subsetting
- Subsetting Staging
- Prep for Distribution
- SDSRV Staging
- Queued
- Waiting for data
- Waiting for processing
- Being processed
- Completed processing
- Expired
- Awaiting L1B
- L1B received
- Awaiting DAR results
- Awaiting more DAR results

- Partitioned (Partitioned is a request status, not an order status. When Partitioned is selected, the GUI lists all the orders, which have the requests with the request status as Partitioned.)
- The **Select All** button selects all items listed above
- The **Deselect All** button removes toggle buttons that had been selected

In addition, the following pushbuttons are available:

- The **Query Orders** button searches for orders based upon the parameters selected and displays them in the Order List scrollable window at the bottom of the screen. If only one order is found, all the requests related to this order are also displayed in the Request List scrollable window.
- The **Update Order** button updates the status and description of the order.
- The **Shipping Information** button brings up the Shipping Information GUI (see section 4.11.2.2.2).
- The **Query Request** button brings up the request list to the Request List scrollable window. The function is similar to the **Query Orders** button.
- The **Delete Request** button deletes requests selected.
- The **Update Request** button updates the status and description of the request.

4.11.2.2.1 Verify User Selection

When retrieving orders by user name, it is possible for identical user names to be found in the database. If the name selected is not unique in the database, the Verify User Selection screen (Figure 4.11.2-2) is displayed to pick from duplicate user names.

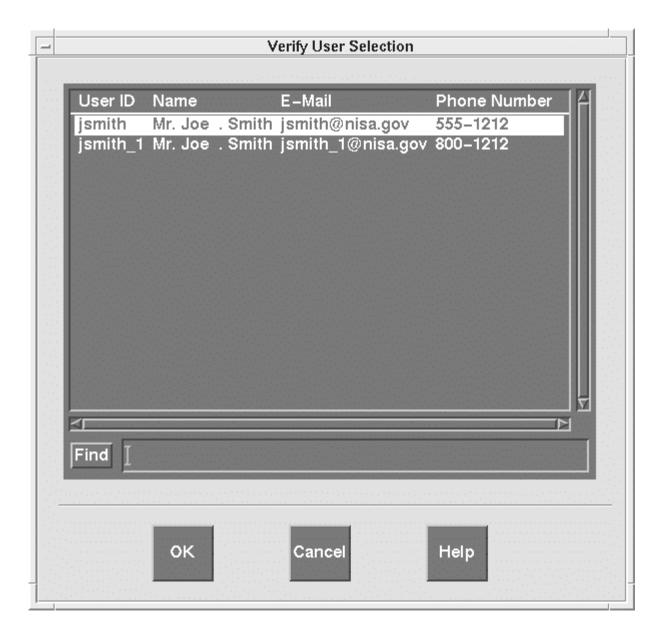


Figure 4.11.2-2. Verify User Selection GUI

In addition, the following pushbuttons are provided:

- The **Find** button allows the operator to search for different names
- The **OK** button accepts the highlighted section, retrieves order information and returns to the main screen
- The Cancel button quits the Verify User Selection screen
- The **Help** button brings up the help information box

4.11.2.2.2 Shipping Information Screen

The Shipping Information screen shown in Figure 4.11.2-3 provides shipping address information for an order when the user clicks on the Shipping Information button.

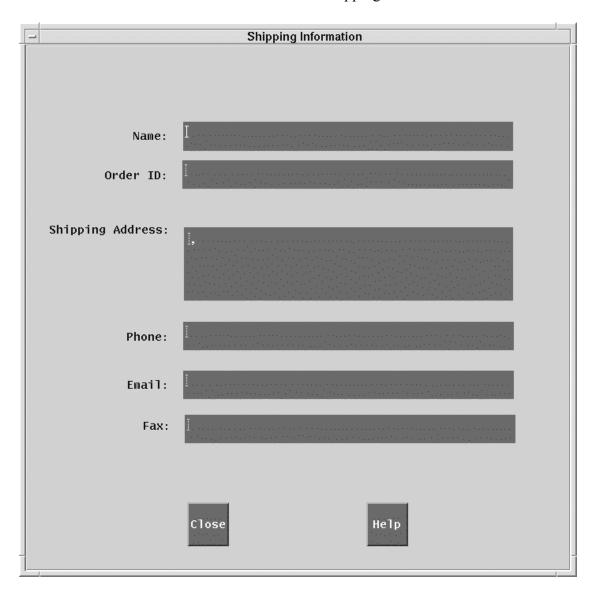


Figure 4.11.2-3. Shipping Information GUI

Table 4.11.2-3 describes the Shipping Information GUI fields.

Table 4.11.2-3. Shipping Information GUI Field Description

11 5					
Field Name	Data Type	Size	Entry	Description	
Name	Character	41	System generated	Who requested the order.	
Order ID	Character	10	System generated	Unique order id.	
Shipping Address	Character	139	System generated	Shipping address for the order.	
Phone	Character	22	System generated	Phone number.	
Email	Character	64	System generated	E-mail address.	
Fax	Character	22	System generated	Fax number.	

In addition the following pushbuttons are provided:

- Close exits the screen and returns to the ECS Order Tracking GUI
- **Help** brings up the help information box

4.11.2.3 Required Operating Environment

For information on the operating environment, tunable parameters and environment variables of the Order Tracking Tool refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series.

4.11.2.3.1 Interfaces and Data Types

Order data comes from the V0 Gateway, V0 Client and the database server.

4.11.2.4 Databases

The Order Tracking tool uses the MSS database installed at each DAAC. The database for Release 6 is described in the *Systems Management Subsystem Database Design and Schema Specifications*, 311-CD-627. The operator may have to identify individual data fields by examination of the descriptions in the document. The following tables are stored in the Sybase database: EcAcOrder, EcAcRequest, EcAcOrderId and EcAcRequestId. All parameters are generated and monitored by Sybase and cannot be modified by the operator.

4.11.2.5 Special Constraints

None.

4.11.2.6 Outputs

Outputs from the Order Tracking GUI are the information displayed on the screens described in this section and error messages. Errors are logged to a log file using the process framework.

4.11.2.7 Event and Error Messages

The ECS Order Tracking GUI reports both status and error messages to the operator, and both types of messages are listed in Appendix A.

4.11.2.8 Reports

The Order Tracking application does not generate reports.

4.11.3 Data Dictionary Maintenance Tool

The Data Dictionary Maintenance Tool (DDMT) GUI allows operators to perform common tasks associated with the upkeep of the Data Dictionary databases. The Data Dictionary is a large relational database, consisting of tables, which provide information about the data collections making up the ECS. Examples of the types of information stored in the Data Dictionary include the time and locations of data gathered, sensors and instruments used to gather the data, and locations where the data is stored. The DDMT GUI provides operators the capability to query the Data Dictionary Database in order to create, ingest, view, modify, and export data types.

The Tool is used to perform the following operator functions listed in Table 4.11.3-1.

Table 4.11.3-1. Common ECS Operator Functions Performed with DDMT

Operating Function	Command/Script or GUI (Tab)	Description	When and Why to Use
Modify Data Dictionary Database	Modify Data	Select the data type (*)Edit the data type	To find and modify items or groups of related items in Data Dictionary database, update specific attributes, and create links to other items in the database.
Check and ingest Valids (Import Valids)	Import Valids File	To check the collection descriptions for any errors and, after correction, Ingest them into the Data Dictionary database.	To gather V0 attribute definitions to be used when mapping V0 terms to ECS terms.
Map Attributes	Map Attributes/Keywords	To translate non-ECS terminology to ECS.	When non-ECS terminology must be reconciled with ECS terminology.
Export Valids	Export Valids File	To send description of ECS data collections to agencies outside of ECS system.	To create valids files for delivery to external systems such as V0.

^(*) In this context, data type is a group of related data dictionary items such as Attributes, Collections, etc.

4.11.3.1 Quick Start Using Data Dictionary Maintenance

Before DDMT is used, the Data Dictionary Server must be up and running.

To execute DDMT from the command line prompt, enter:

/usr/ecs/<mode>/CUSTOM/bin/DMS/EcDmDdMaintenanceTool.csh <mode>

Where:

<mode> is the ECS mode under which the program is to run (e.g., OPS, TS1 or TS2).

The .csh file is the UNIX "shared" file containing parameters for the tool.

4.11.3.2 DDMT Main Screen

The DDMT main screen (Figure 4.11.3-1) provides access to the DDMT function tabs. The DDMT GUI tool is broken down into four tabs: Modify Data, Import Valids File, Map Attributes/Keywords, and Export Valids File. The Modify Data tab is the default tab.

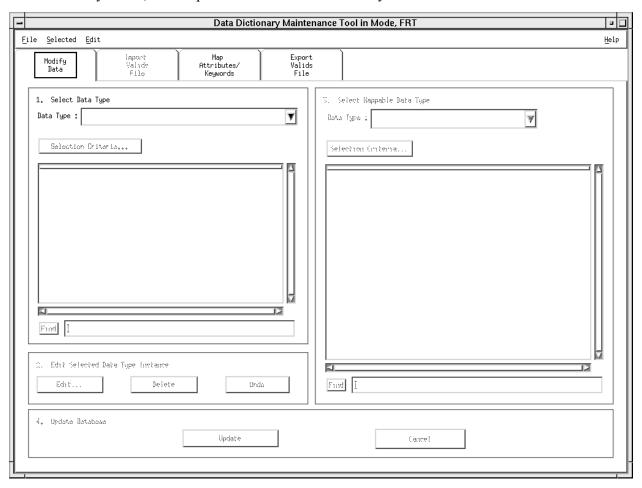


Figure 4.11.3-1. Data Dictionary Maintenance Tool Main Screen Showing the Modify Data Tab

The operator can select from the menu bar items at the top of the DDMT window for getting help and activating less-frequently used secondary functions. The menu bar capability is available on all DDMT GUI screens. The following menus are available:

- **File** provides a short cut for the users. This menu contains the following items:
 - New Attribute Brings up the Attribute Editor screen, through which a new attribute can be inserted into the Data Dictionary database
 - Open Desensitized
 - Save and Save As Desensitized
 - Exit Exit application
- **Selected** provides operations to be performed. This menu contains the following options:
 - Deselect All Desensitized
 - Select All Desensitized
 - Edit Desensitized
- Edit allows for pasting and cutting of text. This menu contains the following options:
 - **Undo** : Available to undo the previous action while a secondary keyword
 - is selected
 - Cut : Desensitized
 - Copy : Desensitized
 - Paste : Desensitized
 - **Clear All** : Clears the entire list boxes and performs the first primary
 - attribute database query
 - Delete : Desensitized
- <u>Help</u> displays general and context sensitive help. This menu contains the following:
 - On Help provides detailed information on using help
 - On context Displays help for the control/field selected after activating this
 - button
 - **On window** Displays help for the window selected after activating this
 - button
 - On Keys provides help on keyboard and mouse usage, and general help on interacting with user interface components
 - Index
 Not available for Release 6
 - Tutorial Not available for Release 6

On Version Not available for Release 6

Tabs - the Tabs open DDMT function screens (tabs) used to perform the functions associated with the tab title. These functions are described below in the sections for the tabs.

The data fields on the DDMT Main Screen are components of the individual tabs.

4.11.3.2.1 Modify Data Tab

The Modify Data tab allows the operator to edit ECS Core Attributes. Upon selecting 'Attribute' from the Data Type drop down list (Figure 4.11.3-1), the Selection Criteria button becomes sensitized. When this button is pushed, the Database List (Attributes) Screen (Figure 4.11.3-2) is displayed.

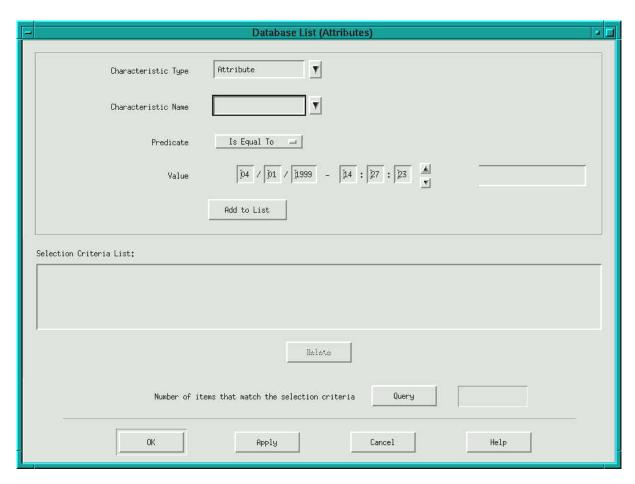


Figure 4.11.3-2. Database List (Attributes) Screen

4.11.3.2.1.1 Editing ECS Core Attributes

On entering/setting the values for the fields appropriately, based on what attribute the operator would like to edit, and clicking the OK button at the bottom, a list of attributes is displayed on the Main Screen (Figure 4.11.3-3). The operator after selecting an attribute can click an edit or delete button. The Attribute Editor screen (Figure 4.11.3-4), which is displayed when the operator clicks on the edit button, allows the operator to edit the values of the attribute. To delete an attribute the operator has to click on the delete button. The edited or the deleted attributes are not written to the database until the update button is clicked. The operator can either undo a single action by clicking on the undo button, or can undo all the action by clicking on the cancel button. The attribute(s) edited can be committed to the database by clicking the update button.

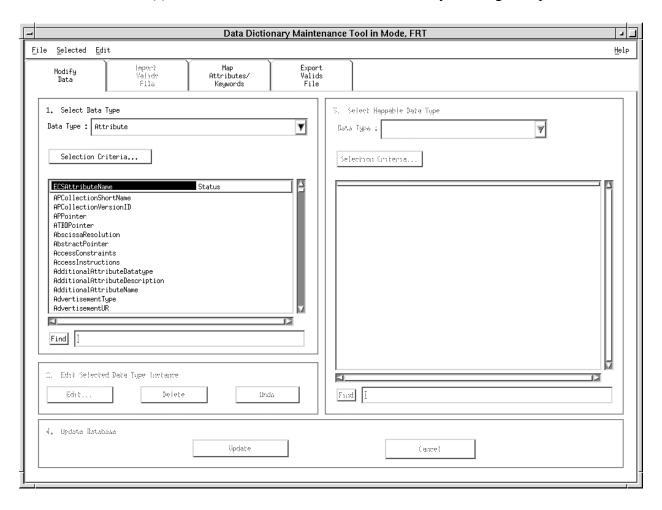


Figure 4.11.3-3. Modify Data Tab with Attribute List

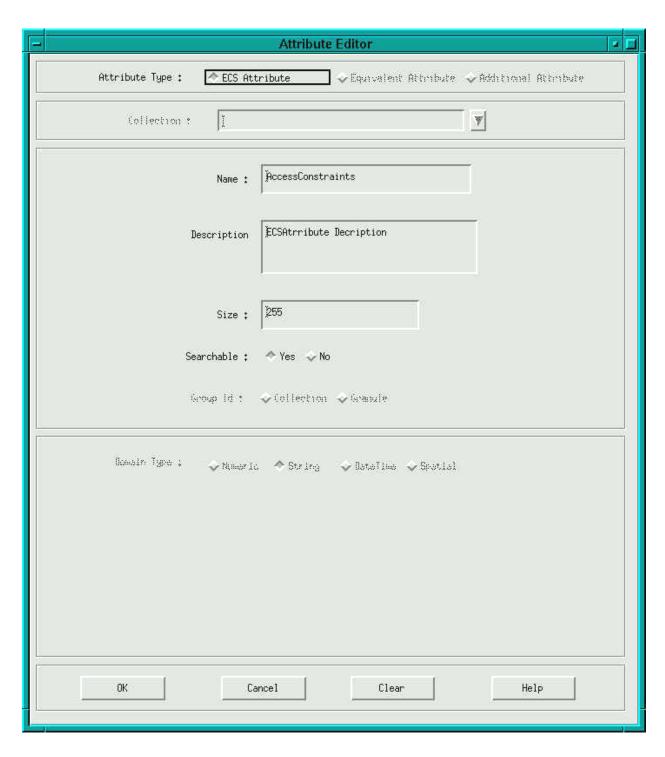


Figure 4.11.3-4. Attribute Editor Screen

4.11.3.2.2 Import Valids File Tab

Figure 4.11.3-5 shows the Import Valids File tab of the Data Dictionary Maintenance window.

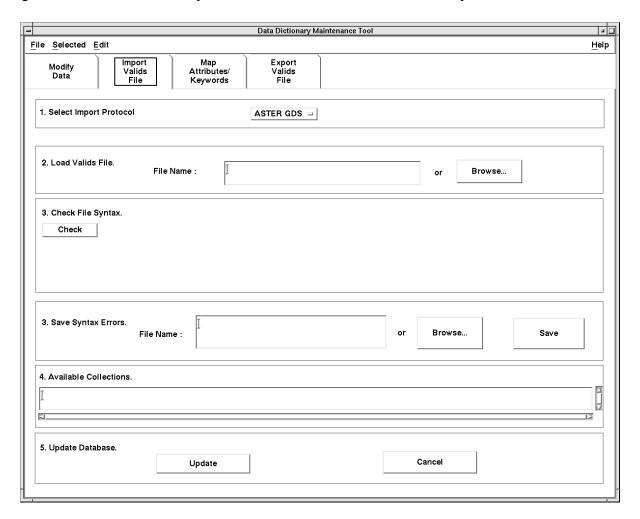


Figure 4.11.3-5. Import Valids File Tab

This screen is used to check the database and ingest valids files. The information about new collections is sent to the operator in the form of a file containing collection descriptions. This is a "Valids" file, which contains the information about one or more collections. This GUI allows the operators to read in the files and run an error checking function. If there are no errors, the collection description is ingested into the Data Dictionary. If any errors are found, a list of all errors is saved to file to be sent to the source for the valids and keyword definitions files, so corrections can be made. Figure 4.11.3-5 shows the Import Valids File tab.

Click on the **Check** File Syntax button to check the file for syntactic errors.

The Ingest Errors window displays any error that occurred during the error checking function. If there are any fatal errors within the file syntax, the Update button is not sensitized. This means the operator cannot ingest the file. The operator can select the Save button to save the list of all errors to a file. If there are no errors, the Update button is sensitized and the Valids File can be ingested into the database by clicking on that button.

The Import Valids File tab provides the following drop-down menu options:

• File - provides a short cut for the expert users. This menu contains the following items:

New - Desensitized

- Open - Opens the specified file only in the Read Valids File

Save and Save As - Saves the Error Dialog to the specified file, without closing the file

- Exit Exit application
- **Selected** provides operations to be performed. This menu contains the following options:
 - Deselect All Desensitized
 - Select All Desensitized
 - Edit Desensitized
- Edit allows for pasting and cutting of text. This menu contains the following options:
 - Undo : Available to undo the previous action while a secondary keyword is selected

Cut : Desensitized

Copy : Desensitized

Paste : Desensitized

- Clear All: Clears all the content of the field within the tabs

Delete : Desensitized

- <u>Help</u> displays general and context sensitive help. This menu contains the following:
 - On Help provides detailed information on using help
 - On context Displays help for the control/field selected after activating this button
 - On window Displays help for the window selected after activating this button

 On Keys - provides help on keyboard and mouse usage, and general help on interacting with user interface components

Index
 Not available for Release 6
 Tutorial
 Not available for Release 6
 On Version
 Not available for Release 6

The detailed description of this tab is in the Table 4.11.3-2.

Table 4.11.3-2. The Import Valids File Field Description

Field Name	Data Type	Size	Entry	Description
Valids File	TEXT	100	Keyboard	Valids file to be ingested by tool.
Ingest Error	TEXT	N/A	NOT INPUT	Instance of syntax error.
Available Service	TEXT	N/A	NOT INPUT	A list of available services for collection.
Error File	TEXT	100	Keyboard	Output file for errors in input file syntax.

The operator can specify in the Valid File window, the ASCII valid file that needs to be inserted in the Data Dictionary Database. Or by clicking the Browse button, which brings up the File Select Pop-up shown in Figure 4.11.3-6. The detailed field description of this screen is in Table 4.11.3-3.

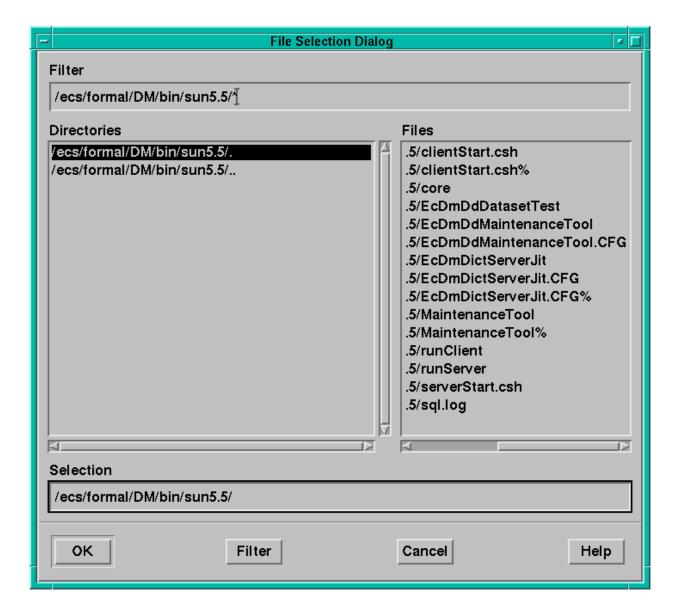


Figure 4.11.3-6. File Select Pop-up

The operator can use the Filter window to limit the selected files to be displayed. Select the desired directory and the corresponding file from the Directories and Files window. The selected file is displayed on the Selection window. By clicking the OK button the File Selection Dialog pops down and the selected file is displayed in the Valids File window.

Table 4.11.3-3. The File Selection Field Descriptions

Field Name	Data Type	Size	Entry	Description
Filter	TEXT	100	Keyboard	Wild-card search criteria.
Directories	LIST	N/A	Click	Select directory to browse.
Files	LIST	N/A	Click	Select file to read.
Selection	TEXT	100	Keyboard	Select file to read.

4.11.3.2.3 Map Attributes/Keywords Tab

The Data Dictionary database contains descriptions of collections from ECS and sources outside ECS. All ECS collections use a standard set of terms to describe their data, but non-ECS collections can contain non-ECS terminology. The Map Attributes/Keywords tab allows the operator to set up an association between ECS and non-ECS attributes and keywords. An operator can choose non-ECS terms from a list and map to the correct corresponding ECS term. Figure 4.11.3-7 shows the Map Attribute/Keywords Tab.

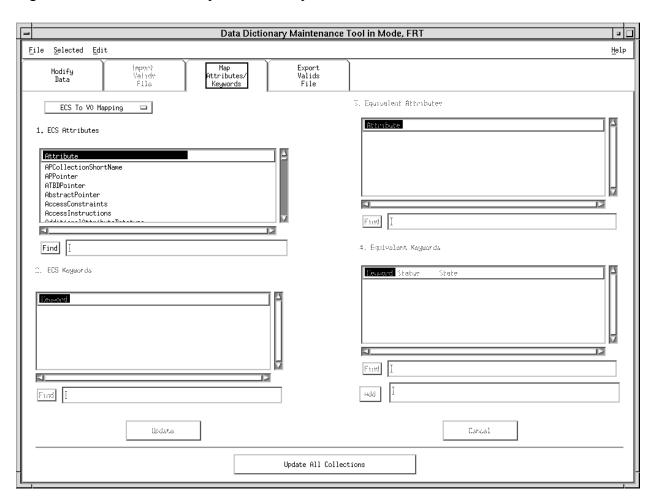


Figure 4.11.3.7. Map Attributes/Keywords Tab

Once the operator is satisfied with the mappings they have set up they can commit these mappings to the database using the update button. To relate these mappings to collections the operator should click on the update all collections button.

The Map Attributes/Keywords tab provides the following drop-down menu options:

• <u>File</u> - provides a short cut for the expert users. This menu contains the following items:

New - Desensitized

Open - Desensitized

Save and Save As - Desensitized

Exit - Exit application

• <u>Selected</u> - provides operations to be performed. This menu contains the following options:

Deselect All
 Deselects all Attributes and Keywords displayed on the tab

Select All
 Selects all Attributes and Keywords displayed on the Tab

Edit - Desensitized

• Edit - allows for pasting and cutting of text. This menu contains the following options:

Undo : Desensitized

Cut : Desensitized

Copy : Desensitized

Paste : Desensitized

- Clear All: Clears all the contents of the field within the tabs

Delete : Desensitized

• <u>Help</u> - displays general and context sensitive help. This menu contains the following:

On Help - provides detailed help on using help

On context - Displays help for the control/field selected after activating this

button

On window - Displays help for the window selected after activating this

button

- On Keys - provides help on keyboard and mouse usage, and general help on

interacting with user interface components

Index - Not available for Release 6

- **Tutorial -** Not available for Release 6

- **On Version** - Not available for Release 6

Table 4.11.3-4 describes the fields on the Map Attributes/Keywords tab.

Table 4.11.3-4. The Map Attributes/Keywords Field Description

Field Name	Data Type	Size	Entry	Description
Attributes	TEXT	N/A		ECS attributes or equivalent (V0) attributes.
Keywords	TEXT	N/A		ECS keywords or equivalent (V0) keywords.

4.11.3.2.4 Export Valids File Tab

The Export Valids File Tab shown in Figure 4.11.3-8 allows operators to send descriptions of data collections existing in the database to outside of the ECS. Valids files are used for this purpose. This tab allows the operators to select the desired collection and specify the name/locations for the file to be written.

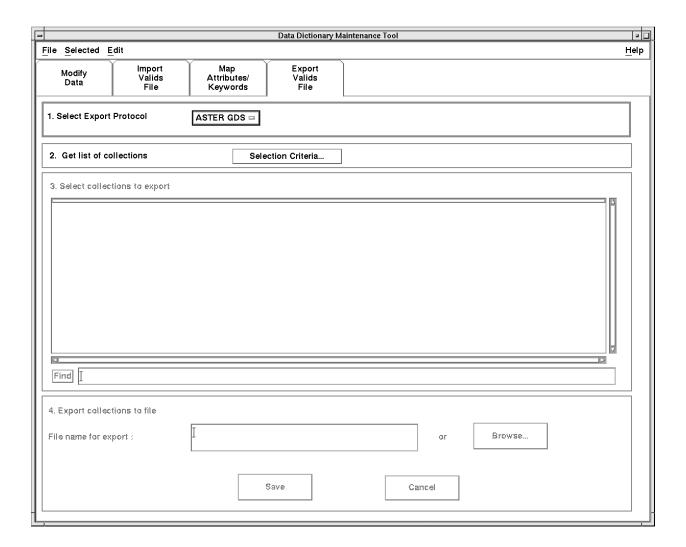


Figure 4.11.3-8. Export Valids File Tab

Clicking on the Selection Criteria button brings up the Database list dialog. By clicking on the OK button a list of collections is displayed on the Collections List. By double clicking on the collection(s), the operator wishes to export, export status is attached to the collection(s). Then the operator can specify where to write the valid file to, in the Valid File text box, or by clicking the Browse button the operator can choose the location/path. By clicking on the Save button the valids are written to the specified file.

The Export Valids File tab provides the following drop-down menu options:

- **File** provides a short cut for the expert user. This menu contains the following items:
 - **New -** Desensitized
 - **Open** Desensitized

Save and Save As - Saves the Error Dialog to the specified file, without closing the file

Exit - Exit application

• <u>Selected</u> - provides operations to be performed. This menu contains the following options:

Deselect All - Desensitized
 Select All - Desensitized

Edit - Desensitized

• Edit - allows for pasting and cutting of text. This menu contains the following options:

Undo : Available to undo the previous action while a secondary keyword is selected

Cut : Desensitized
Copy : Desensitized
Paste : Desensitized

- Clear All: Clears all the content of the field within the Tabs

Delete : Desensitized

• **Help** - displays general and context sensitive help. This menu contains the following:

On Help - provides detailed information on using help

On context - Displays help for the control/field selected after activating this button

On window - Displays help for the window selected after activating this button

On Keys - provides help on keyboard and mouse usage, and general help on interacting with user interface components

Index - Not available for Release 6Tutorial - Not available for Release 6

On Version - Not available for Release 6

Table 4.11.3-5 describes the fields on the Export Valids File screen.

Table 4.11.3-5. The Export Valids File Field Descriptions

Field Name	Data Type	Size	Entry	Description
Collections	LIST	N/A	Click	List of possible collections.
Collection to Write	LIST	N/A	Click	List of collections to export.
Valids File	TEXT	100	Keyboard	File name for generated valids file.

4.11.3.2.5 Release Collection Tab (not part of drop 6 release)

The Release Collection function is not to be available in the ECS Release 6.

4.11.3.2.6 Create Multiple Collection Tab (not part of drop 6 release)

The Create Multiple Collection function is not available in the ECS Release 6.

4.11.3.3 Required Operating Environment

DDMT runs on the dms1 host.

For information on the operating environment, tunable parameters and environment variables of DDMT refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series

4.11.3.3.1 Interfaces and Data Types

DDMT exchanges data of various types through interfaces with the Data Dictionary Server, which runs in the background.

4.11.3.4 Database Schema

The DDMT process uses the Data Management database. Documentation for this database for Release 6 is ECS document 311-CD-620, *Data Management Database Design and Schema Specifications*. The operator can identify individual data fields by examination of the descriptions in the documentation. Some data can be directly accessible through the database software.

4.11.3.5 Special Constraints

The Data Dictionary Server must be running.

4.11.3.6 Outputs

Output from the DDMT consists of the data displayed on the screens described in Section 4.11.3.2, database updates or additions to the database referenced in Section 4.11.3.4, and error and event messages described in Section 4.11.3.7.

4.11.3.7 Event and Error Messages

DDMT uses the ECS Process Framework error logging.

4.11.3.8 Reports

None.

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4.11.4 PDPS Subscription Editor

The Subscription Editor allows an operator to manually enter subscriptions to the Infrastructure Development Group (IDG) Subscription Server. The ability to submit subscriptions automatically has been integrated into the Production Request Editor. This tool allows the operations staff flexibility in submitting subscriptions. The Subscription Editor also has the ability to register subscriptions on behalf of the SCF user as well as the PDPS production system (subscription manager). But this functionality is also available in the more user-friendly IDG Subscription tool (see Section 4.12.9 "Subscription Server"). Submitting/withdrawing subscriptions are functionally separated from the receipt of subscription notifications; the reception of the notification is the responsibility of the Subscription Manager.

The subscriptions built are slightly different for the two classes of users. Those for the Subscription Manager send notifications via the IDG asynchronous message passing mechanisms using a logical queue name defined in the configuration file for this tool. The logical queue name is a DCE CDS directory entry which is the destination for the IDG asynchronous notification, and to which the Subscription Manager registers interest in arriving messages.

The subscriptions built for the other class of users send notifications by e-mail. When building a subscription for an end user, the operator enters information about the client who receives the notification. The ECS user-id has to be supplied for the SCF user; this is used within the IDG subscription server to determine an e-mail account to which notification is sent.

A subscription is built from an advertisement of the subscription. The advertising subsystem maintains a list of all the "events" which may be subscribed to within the ECS system. The PDPS production system is basically interested in INSERT events for ESDTs (to be made aware when new data arrive into the ECS). The events are created/defined during the process of adding an ESDT to the Science Data Server; the events are actually advertised by the IDG subscription server(s). SCF users may browse the list of subscribable events from the Earth Science Online Directory. The Subscription Editor software accesses the advertisements for subscribable events by searching on their "internal service name" within the advertising database.

PDPS Subscription Editor is used to perform the operator functions listed in Table 4.11.4-1.

Table 4.11.4-1. Common ECS Operator Functions Performed with PDPS Subscription Editor

Operating Function	Command	Description	When and Why to Use
Start PDPS Subscription Editor program	EcPISubsEditStart	This brings up the PDPS Subscription Editor.	To manually enter or cancel subscriptions.
Manually enter subscriptions to the IDG Subscription Server	EcPlSubsEditStart	The program queries the operator for the input parameters necessary to submit the subscription.	When the Subscription Manager or SCF user requires a subscription to be manually entered.
Manually cancel subscriptions to the IDG Subscription Server	EcPlSubsEditStart	The program queries the operator for the input parameters necessary to cancel the subscription.	When the Subscription Manager or SCF user requires a subscription to be manually canceled.

4.11.4.1 Quick Start Using Subscription Editor

To execute PDPS Subscription Editor from the command line prompt use:

> EcPlSubsEditStart <mode> [<APP_ID>]

The **mode** parameter specifies the mode in which the program is to run. The Subscription Editor can run in any mode (e.g., OPS, TS1, or TS2). The DAAC Operations staff establishes the modes of operation.

The optional **APP_ID** parameter establishes a unique identifier for the running program. It is an integer. If the value of a running program is selected, the script terminates with a message indicating another APP_ID must be chosen.

Refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series, for a listing of **EcPlSubsEditStart.**

4.11.4.2 Subscription Editor Main Screen

There is no GUI or CHUI for the PDPS Subscription Editor. The DAAC operations user interacts with the Subscription Editor by responding to the following prompts put out by the program.

Enter ESDT data type name (as appears in the PDPS database):
Override the provider [provider name] defined for this ESDT (Y/N):
Submit (S)/Withdraw (W):
Specify the Internal Service Name
Enter 'd' for default Insert Event service.

4.11.4.3 Required Operating Environment

The PDPS Subscription Editor is run on the SUN.

For information on the operating environment, tunable parameters and environment variables of PDPS Subscription Editor refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series. Table 4.11.4-2 identifies the supporting products this tool depends upon in order to function properly.

Table 4.11.4-2. Support Products for PDPS Subscription Editor

11
Interface (facility)
IDG Subscription Server

4.11.4.3.1 Interfaces and Data Types

Table 4.11.4-3 identifies Subscription Editor interfaces.

Table 4.11.4-3. PDPS Subscription Editor Interfaces

Table 11111 of 121 of Calcottipuon 2 and 1111011				
Interface (facility)	Type Interface Protocols	Description	Comments	
MSS	Process Framework	Used for error logging.	Via EcPfClient	
IDG	OODCE/Client	Cancel or submit subscriptions.	Subscription Server	
PDPS	Sybase Client	Access the PDPS database.		

4.11.4.4 Databases

The PDPS Subscription Editor uses the PDPS database, the IDG Subscription Server database, and the IOS Advertising database. The PDPS database for Release 6 is ECS document 311-CD-623, *Planning and Data Processing Subsystem Database Design and Schema Specifications*. The IDG Subscription Server database is 311-CD-626, *Subscription Server Database Design and Schema Specifications*.

4.11.4.5 Special Constraints

ESDTs must have been registered with PDPS through the SSIT process. The ESDTs and their associated events must be installed into the SDSRV, and the IDG Subscription Server.

4.11.4.6 Outputs

The PDPS Subscription Editor output consists of data returned to the command line interface, error messages as described in Section 4.11.4.7, and updates to the PDPS and IDG subscription server database.

4.11.4.7 Event and Error Messages

The PDPS Subscription Editor program issues error messages, which are listed in Appendix A.

4.11.4.8 Reports

None.

4.11.5 Database Installation and Maintenance Scripts

A set of eleven standard database scripts have been created for the DDIST, INGEST, MSS, PDPS, SDSRV, STMGT, and SUBSRV subsystems to facilitate database installation and database administration activities. These scripts are designed to be accessible from both the command line and the Stage Install function of ECS Assist. The scripts follow a standard naming convention across each subsystem consisting of a prefix, of the format *EcXXXX*, identifying the subsystem component and a root identifying the primary database command or purpose performed by the script. For example a script to define login IDs used by the Ingest subsystem would be called EcInDbLogin.

A description of each of the suggested standard scripts is given Table 4.11.5-1. Details on the applicable scripts for each subsystem can be found in the corresponding subsystem-specific 311-database documentation.

Table 4.11.5-1. Common ECS Operator Functions Performed with Database Installation and Maintenance Scripts (1 of 2)

Operating Function	Command	Description	When and Why to Use
Add Login	DbLogin	Add existing system login to the SQL server.	Use when installing an ECS custom application to add the pre-defined set of Unix logins used by the application to the appropriate SQL server.
Add User	DbUser	Add user ID to a database.	Use when installing an ECS custom application to add the pre-defined set of User IDs used by the application to the appropriate database.
Create Database	DbBuild	Build a new empty database and load with initial start-up data.	Use when installing an upgraded Release/drop or an ECS custom application into a mode where there is no existing data that needs to be retained.
Upgrade Database	DbPatch	Upgrade tables to new schema while retaining existing data.	Use when installing an upgraded Release/Drop of an ECS custom application into a mode containing existing data that needs to be retained.
Drop objects	DbDrop	Remove all database objects (tables, triggers, stored procedures, domains, rules, user-defined data types) from a database.	Should not be used independently by the Operator. Used by DbBuild script during installation to remove obsolete objects from the database.

Table 4.11.5-1. Common ECS Operator Functions Performed with Database Installation and Maintenance Scripts (2 of 2)

Operating Function	Command	Description	When and Why to Use
Backup database	DbDump	Create a backup file for the database.	Use to create a backup of the database that can be used in the event of database corruption or disk failure.
Restore database	DbLoad	Restore a database from a backup file.	Use to recover from database corruption or disk failure.
Update database statistics	DbStat	Updates the database statistics used by the Sybase query optimizer.	Use on a regular frequency to update database statistics to optimize query response times.
Remove ESDT	DbClean	Removes all data for a single ESDT from the database.	Use to de-install an ESDT from a subsystem database.
Purge data	DbPurge	Removes and/or archived expired data.	Use on a periodic basis to delete expired.
Check install	EcDsDesc	Verifies database install.	Use after running DbBuild or DbPatch to confirm the subsystem database was properly installed.

4.11.5.1 Quick Start Using Database Installation and Maintenance Scripts

The database installation and maintenance scripts are a custom developed utility and should be used only by database administration personnel.

To execute Database Installation and Maintenance Scripts from the command line prompt use:

Scriptname <*mode>* <*dbo id>* <*passwd>* <*sqlserver>* <*dbname>* where:

Scriptname specifies the name of the database script to be executed.

The <**mode**> parameter specifies the mode (e.g., OPS, TS1, or TS2) in which the database to be used is found.

The <*dbo_id*> parameter specifies the user ID of the database owner for the database to be used.

The passwd> parameter specifies the password of the database owner for the database to be used.

The <*sqlserver*> parameter specifies the name of the SQL server under which the database to be used is found.

The *dbname* parameter specifies the name of the database to be used.

4.11.5.1.1 Invoking Database Installation and Maintenance Scripts using ECS Assist

All scripts, except EcDbDesc, can be invoked using the ECS Assist installation tool using the DATABASE command button. Further information on using ECS Assist can be found elsewhere in this document (see sub-section 4.1.9).

4.11.5.3 Required Operating Environment

The Database Installation and Maintenance Scripts can be run on the SUN or SGI.

For information on the operating environment, tunable parameters and environment variables of Database Installation and Maintenance Scripts refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series.

Table 4.11.5-2 identifies the supporting products this tool depends upon to function properly.

Table 4.11.5-2. Support Products for Database Installation and Maintenance Scripts

Interface (facility)
Sybase SQL Server

4.11.5.3.1 Interfaces and Data Types

None.

4.11.5.4 Databases

The Database Installation and Maintenance Scripts uses the DDIST, DM, INGEST, MSS, SDSRV, STMGT, or SUBSRV database as applicable. Description of each of these databases is found in the following documents:

- 311-CD-101, Data Distribution Subsystem Database Design and Schema Specifications
- 311-CD-620, Data Management Subsystem Database Design and Schema Specifications
- 311-CD-621, *Ingest Subsystem Database Design and Schema Specifications*
- 311-CD-627, System Management Support Subsystem Database Design and Schema Specifications
- 311-CD-623, Planning and Data Processing Subsystem Database Design and Schema Specifications
- 311-CD-624, Science Data Server Subsystem Database Design and Schema Specifications
- 311-CD-625, Storage Management Subsystem Database Design and Schema Specifications
- 311-CD-626, Subscription Server Database Design and Schema Specifications

4.11.5.5 Special Constraints

None.

4.11.5.6 Outputs

None.

4.11.5.7 Event and Error Messages

The Database Installation and Maintenance Scripts issues error messages, which are reported on the Sybase error log.

4.11.5.8 Reports

None.

4.11.6 Database Replication Scripts

A set of replication scripts has been created for the MSS subsystem to facilitate installation and administration activities. These scripts are designed to be accessible from the command line only. The scripts follow a standard naming convention across each subsystem consisting of a prefix, of the format *EcXXXX*, identifying the subsystem component and a root identifying the primary command or purpose performed by the script. For example, a script to define replication login IDs used by the MSS would be called EcMsRsLogin.

A description of each of the suggested standard scripts is given in Table 4.11.6-1. Details about the applicable scripts can be found in the appropriate subsystem-specific DID 311 database specification document.

Table 4.11.6-1. Common ECS Operator Functions Performed with Database Replication Scripts

Operating Function	Command	Description	When and Why to Use
Add Login	RsLogin	Add existing system login to the SQL server.	Use when installing an ECS custom application to add the pre-defined set of Unix logins used by the application to the appropriate SQL server.
Add User	RsUser	Add user ID to a database.	Use when installing an ECS custom application to add the pre-defined set of User IDs used by the application to the appropriate database.
Install Replication Objects	RsBuild	Install a new copy of scripts and replication objects necessary for database replication.	Use when installing an upgraded Release/drop or an ECS custom application into a mode where there is no existing data needing to be retained.
Upgrade Replication Objects	RsPatch	Installs replicate database patch wrapper, or modifications to existing replication objects.	Use when installing an upgraded Release/Drop of an ECS custom application into a mode containing existing data needing to be retained.
Replicate MSS Databases	RsMsDb	Create a backup file for the database.	Use to create a backup of the database used in the event of database corruption or disk failure.

4.11.6.1 Quick Start Using Database Replication Scripts

The database replication installation and maintenance scripts are a custom developed utility and should be used only by database administration personnel.

4.11.6.2 Database Replication Script User Interface

To execute database replication installation and maintenance scripts from the command line prompt use:

>Scriptname < mode>

Where:

Scriptname specifies the name of the database script to be executed.

< mode > specifies the mode in which the databases to be used are found (e.g., OPS, TS1 or TS2).

4.11.6.2.1 Invoking Database Replication Scripts using ECS Assist.

There are no scripts to invoke the Database Replication Servers using the ECS Assist tool.

4.11.6.3 Required Operating Environment

The Database Replication Scripts can be run on the SUN.

For information on the operating environment, tunable parameters and environment variables of Database Replication Scripts refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series.

Table 4.11.6-2 identifies the supporting products this tool depends upon to function properly.

Table 4.11.6-2. Support Products for Database Replication Scripts

Interface (facility)	
Sybase SQL Server	
rs_subcmp (Sybase Replication Server utility)	

4.11.6.3.1 Interfaces and Data Types

None.

4.11.6.4 Databases

The Database Replication Scripts use the MSS database as applicable. A description of this database is found in the following document:

311-CD-627, System Management Support Subsystem Database Design and Schema Specifications

4.11.6.5 Special Constraints

None.

4.11.6.6 Outputs

None.

4.11.6.7 Event and Error Messages

The Database Replication Scripts issues error messages, which are reported to the script's error log.

4.11.6.8 Reports

None.

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4.11.7 Landsat 7 Error Handling Tool

The Landsat 7 Error Handling Tool provides the ECS Operations Staff with the capability to Merge/Demerge/Promote/Delete Landsat 7 granules using a command line interface. This tool works exclusively in the Science Data Server (SDSRV) database. The tool only modifies tables in the SDSRV database.

The **Delete** command gives the user options to modify the DeleteFromArchive flag in the DsMdGranules table only or physically delete the granules from the archive and the inventory.

The **Merge** command mimics the process done by the SDSRV and Landsat 7 Dynamic Link Library (DLL) while ingesting Landsat 7 data.

The **Demerge** operation allows the operations staff to separate incomplete combined granules and thus allows the recombination, Merging, of complete data sets.

The **Promote** tool is used to associate granules with only a single format of data, bands 1-6 format 1/bands 6-8 format 2, with the appropriately combined subinterval and thus making the granule available for ordering. Before this tool, the data was unavailable.

4.11.7.1 Quick Start Using the Landsat 7 Error Handling Tool

Entering the following command starts the Landsat 7 Error Handling Tool:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

There are three command line parameters and they are used in combination with each other. Table 4.11.7-1 describes these parameters.

Table 4.11.7-1. Command Line Parameters of the Landsat 7 Error Handling Tool

Parameter Name	Description
Mode	Mode corresponding with the database to be modified.
Start Time	Start time, insertTime, of the temporal range of granules to search. This is used to search for unmerged subintervals/scenes when the Landsat 7 Error Handling Tool is started.
Stop Time	Stop time, insertTime, of the temporal range of granules to search. This is used to search for unmerged subintervals/scenes when the Landsat 7 Error Handling Tool is started.

All of the parameters are mandatory. Before starting the tool the file

This file is used by EcDsSrDbL7ErrorHandling to setup environment # variables, which makes EcDsSrDbL7ErrorHandling more tunable. # MUST be updated to customize at sites.#

export SYBASE=/tools/sybOCv11.1.1 # Directory where Sybase
stuff resides

[&]quot;EcDsSrDbL7ErrorHandlingRC" should be modified to reflect the user's local environment.

```
export SERVER=x0acgxx srvr
                                             # SOL server where ECS
Science Data Server
                                             # Database can be
                                               accessed
export ECS HOME=/usr/ecs/
export SQSSERVER=x0acgxx sqs322 srvr
                                             # SQS server
export DBUSERNAME=EcDsScienceDataServer
                                             # Valid user name to log into
                                            # the database
export DBPASSWD=xxxxxxx
                                             # Password to access
database
export DBNAME=EcDsScienceDataServerX # Name of database
export WORKDIR=/usr/ecs/${MODE}/CUSTOM/data/DSS
                                                          # Directory
where the
                                                        # Script
resides
export reportdir=/usr/ecs/${MODE}/CUSTOM/data/DSS # Directory for report files
export tempdir=/usr/ecs/${MODE}/CUSTOM/data/DSS
                                                        # Directory
                                                           for
                                                        # Temporary
                                                          files
export errorfile=/usr/ecs/${MODE}/CUSTOM/data/DSS/EcDsSrDbL7ErrorHandling.errlog
```

4.11.7.2 Landsat 7 Error Handling Tool Commands

The Landsat 7 Error Handling Tool provides the following granule modification options:

1. **Initiate Merge of Landsat 7 Subintervals/Scenes from the SDSRV database**. The selected Subintervals/Scenes must be passed to the tool via a file, which gets created during the start of the Landsat 7 Error Handling tool. The input file format is very specific, it is listed below.

messages

File to use for holding any possible error

Subinterval sample file input:

dbID	ShortName	Insert	Time		Path	Starting	Row Ending Row	Assoc. File Name
10248	L70RF1	May 27	1998	9:26AM	172	44	50	SC:L70RF1.001:10248
10247	L70RF2	May 27	1998	9:26AM	172	44	50	SC:L70RF2.001:10247
10669	L70RF1	May 27	1999	9:25AM	172	44	50	SC:L70RF1.002:10669
10661	L70RF2	May 27	1999	9:25AM	172	44	50	SC:L70RF2.002:10661

Scene sample file input:

dbID	ShortName	Insert	Time		Path	Row	Associated File Name
13530	L70RWRS1	May 27	1998	9:25AM	172	44	SC:L70RWRS1.001:13530
13531	L70RWRS2	May 27	1998	9:25AM	172	44	SC:L70RWRS2.001:13531
13532	L70RWRS1	May 27	1998	9:26AM	172	45	SC:L70RWRS1.001:13532
13533	L70RWRS2	May 27	1998	9:26AM	172	45	SC:L70RWRS2.001:13533

- 2. **Promote Landsat 7 Subinterval/Scene from the SDSRV database.** The selected Subintervals/Scenes must be passed to the tool via a file, which gets created when the operators start the Landsat 7 Error Handling tool.
- 3. **Demerge Landsat 7 Subinterval/Scene from the SDSRV database.** The selected Subinterval/Scene must be passed to the tool by entering the geoid of the granule when prompted.
- 4. **Delete Landsat 7 Subinterval/Scene from the SDSRV database**. The selected Subintervals/Scenes must be passed to the tool by entering the geoid of the granule when prompted.
- 5. **Generate list of Orphaned Landsat 7 Subintervals/Scenes in the SDSRV Database.** The list of orphaned Subintervals/Scenes is generated based on the start time and stop time parameters passed in as parameter #2 and #3 at invocation of the tool.

4.11.7.2.1 Initiate Merge of Landsat 7 Subintervals/Scenes from the SDSRV Database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

This command invokes the tool. The script displays a menu of commands. To initiate a merge, the user should select option 3, "Merge Subintervals/Scenes". The user is prompted for a filename. The user should enter the name of the file containing the format as described in section 4.11.7.2. The script returns a failed or successful status and then returns to the menu.

4.11.7.2.2 Promote Landsat 7 Subinterval/Scene from the SDSRV database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

This command allows the user to make data available that cannot be used. This command is used to make data with only one format appears as though both formats existed. The user enters the command and the script displays a list of options. The user should select option 5,"Promote Orphaned granules". The user is prompted for a filename containing the format as described in section 4.11.7.2. After entering the filename, the script returns a failed or successful status and then returns to the menu.

4.11.7.2.3 Demerge Landsat 7 Subinterval/Scene from the SDSRV database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

This command is used for incorrectly combined data sets. The user should select option 4, "Demerge L70RF1/F2 granules", from the menu. The script prompts the user for the geoid of the granule to demerge. An example of a geoid is SC:L70R.001:12345. The first part is the type of the granule. SC represents science granules. The second part is the subtype and version of the granule. The last part is the dbId of the granule. This uniquely identifies the granule in the Science Data Server's database.

4.11.7.2.4 Delete Landsat 7 Subinterval/Scene from the SDSRV database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

After entering the above command, the user sees a list of options. The user should select option 6,"Delete Unmerged granules". The script prompts the user for the geoid of the granule to delete. The user is prompted for confirmation of the deletion. The user also is prompted to determine if the granule should be deleted from the archive and the inventory.

4.11.7.2.5 Generate list of Orphaned Landsat 7 Subintervals/Scenes in the SDSRV database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

The first time the script is invoked it always searches the SDSRV database for orphaned granules within the time range given by the start time and stop time input parameters. After that, the user can generate the list by selecting command #2, "Update files on /tmp directory". This creates two files in the /usr/ecs/<MODE>/CUSTOM/data/DSS directory. One of the files, named unmergedsubintervals, contains all the unmerged subintervals. The other file, named unmergedscenes, contains all the unmerged scenes. The user may use these files for the merged Landsat 7 granules and promoted Landsat 7 granule options.

4.11.7.3 Required Operating Environment

For information on the operating environment, tunable parameters, and environment variables refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series.

4.11.7.3.1 Interfaces and Data Types

Table 4.11.7-2 lists the supporting products this tool depends upon to function properly.

Table 4.11.7-2. Interface Protocols

Product	Protocols	ols Comments		
Dependency	Used			
SDSRV Database	SQL	Via SQL server machine.		

4.11.7.4 Databases

The Landsat 7 Error Handling tool does not include the direct managing of any database. It has an interface with the Science Data Server Database: however this interface is based on a simple parameter passing function. For further information of the Science Data Server Database refer to 311-CD-624, Science Data Server Database Design and Schema Specifications for the ECS Project.

4.11.7.5 Special Constraints

The Landsat 7 Error Handling Tool does not require any servers to be running. It is strongly recommended as little as possible should be going on in the SDSRV database while the tool is being used.

4.11.7.6 Outputs

None.

4.11.7.7 Event and Error Messages

None.

4.11.7.8 Reports

None.

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4.11.8 Restricting Access to ESDTs and Granules Scripts

The two scripts *EcDsSrUpdateESDTAccess* and *EcDsSrUpdateQATimeRange* provide DAAC operations staff the capability to adjust how the Science Data Server restricts *Acquire* access to granules. When evaluating a user's permission to *Acquire* a granule, the Science Data Server uses the value of the NASA user attribute stored in the User Profile system. The first script, *EcDsSrUpdateESDTAccess*, allows the DAAC operator to restrict an entire ESDT/Data Collection to one or more of the specific NASA user types stored in the User Profile system. The second script, *EcDsSrUpdateQATimeRange*, allows individual granules to be restricted based upon the granule's QA flag values and the type of NASA user making the request. These scripts are delivered as part of the Science Data Server package and are installed in the */usr/ecs/<mode>/CUSTOM/dbms/DSS* directory.

4.11.8.1 Quick Start Using Restricted Access to ESDTs and Granules Scripts

Both of the scripts, *EcDsSrUpdateESDTAccess* and *EcDsSrUpdateQATimeRange*, require the environment variables described in Table 4.11.8-1 to be set up.

Table 4.11.8-1. Environment Variables for Restricted Access to ESDTs and Granules Scripts Commands

Variable	Description
DSQUERY	Contains the name of the Sybase SQL server where the ScienceDataServerdatabase is stored.
DBUSERNAME	Contains the Sybase login name for the owner of the Science Data Server database.
DBPASSWD	Contains the password for the Sybase login.
DBNAME	Contains the name of the Science Data Server database within the SQL server.

These can be set temporarily at the command prompt or they can be added to the operators .cshrc file. For example, to set the DBNAME environment variable using the csh, at the prompt, the operator would type:

> setenv DBNAME EcDsScienceDataServer1 (and press < Enter>).

4.11.8.2 Quick Start Using Restricted Access to ESDTs and Granules Scripts Commands

After initializing the required environment variables, the following command scripts can be invoked.

4.11.8.2.1 EcDsSrUpdateESDTAccess Command Script

The script "EcDsSrUpdateESDTAccess" should be invoked as:

>EcDsSrUpdateESDTAccess <ShortName> <VersionID>

Where **ShortName** is a string of up to eight characters and **VersionID** is a positive numeric value between 1 and 255. Together **ShortName** and **VersionID** identify the ESDT to be modified

This script prompts the operator for the combination of NASA user types who should be allowed access to the ESDT.

The valid NASA user types are:

P – privileged NASA user

R – regular NASA user

N – non-NASA user

The Operator should type in a combination of one or more of the letters "PRN" and press Enter. For example, typing in the letter "P" restricts the ESDT to privileged NASA users only. Entering the letters "PR" restricts the ESDT to privileged and regular NASA users only. *Acquire* requests from NASA users not listed in the ESDT's access list (set by this script) are rejected. When an *Acquire* request is rejected, an access violation entry is written to the Science Data Server log file indicating the user and the UR of the granule.

These restrictions are independent of the values of the QA flags. By default, each ESDT allows *Acquire* access to all NASA user types. This script should be executed if the DAAC operations staff wishes to impose a restriction on the entire ESDT.

4.11.8.2.2 EcDsSrUpdateQATimeRange Command Script

The script "EcDsSrUpdateQATimeRange" should be invoked as:

>EcDsSrUpdateQATimeRange <ShortName> <VersionID>

This script prompts the operator for the number of days to be used when measuring the QA time range of a granule. An integer value greater than or equal to zero should be entered. The Science Data Server uses this integer value when it determines the access status of a granule during an *Acquire* request. The integer number of days entered for the ESDT is added to the ProductionDateTime attribute of the granule to determine the granule's QA time period. If the current time of the *Acquire* request is before the end of the QA time period then a restrictive set of access rules is used to determine the users access to the granule. If the time of the *Acquire* request is beyond the granule's QA period, then a less restrictive set of rules is applied.

The rules work by comparing the values of the OperationalQualityFlag and the ScienceQualityFlag attributes against a list of NASA user types having access to the flag value. For example, during the QA period, a non-NASA user can only *Acquire* a granule with QA Flag values of "null" or "Passed." However outside the QA period of the granule, the same non-NASA user can *Acquire* the granule as long as the QA flags are not "Failed" or "Under Investigation."

By default each ESDT has the QA Temporal range/period set to null, which is interpreted as an infinite QA period. If this script is not used to update the ESDT, the most restrictive rules are applied to all *Acquire* requests for the ESDT.

Setting the QA period to zero has special meaning. A period of zero causes the less restrictive rules to always be used to determine the access to a granule. The ESDT is considered to have no QA period.

4.11.8.3 Required Operating Environment

For information on the operating environment, tunable parameters, and environment variables refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series.

4.11.8.4 Interfaces and Data Types

These two scripts use the Sybase program "isql" to interface with the Science Data Server database. The "isql" program should be installed and operational before executing these scripts.

4.11.8.5 Databases

The Restricting Access to ESDTs and Granules Scripts do not include the direct managing of any database. They have an interface with the Science Data Server Database: however this interface is based on a simple parameter passing function. For further information on the Science Data Server Database refer to 311-CD-624, *Science Data Server Database Design and Schema Specifications for the ECS Project*.

4.11.8.6 Special Constraints

The Restricting Access to ESDTs and Granules Scripts do not require any servers to be running. The Science Data Server must be restarted for the database changes made by these scripts to become effective.

4.11.8.7 Outputs

None.

4.11.8.8 Event and Error Messages

None.

4.11.8.9 Reports

None.

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4.11.9 Science Data Server Command Line Interface (SCLI)

The SCLI tool provides the Product Distribution System (PDS) with the capability to acquire Landsat and Non Landsat products via FtpPush, in fulfillment of orders placed by ECS users for those products via DTF, 8mm, DLT and CD-ROM/DVD. The SCLI tool accomplishes this by providing a command line interface for the SDSRV acquire request. The acquire command is submitted by either passing abbreviated an UR and/or a subsetting parameter file upon invocation of the tool

4.11.9.1 Quick Start Using the SCLI Tool

Entering the following command starts the SCLI Tool, non Landsat product acquire:

Entering the following command starts the SCLI Tool, Landsat product acquire:

There are four/five command line parameters and they are used in combination with each other. Table 4.11.9-1 describes these parameters.

 Parameter Name
 Description

 mode
 Mode corresponding with the database to be searched.

 parameterfile
 A file containing all of the information required to acquire and distribute the request submitted.

 subsetparmfile
 A file containing all of the subset information required for a Landsat granule.

 file
 A file that can contain up to 100 granules to be acquired.

 tag
 Unique request identification, used to track request in system. Can be up to XX characters in length.

Table 4.11.9-1. Command Line Parameters of the SCLI Tool

All of the parameters are mandatory, obviously the subsetparmfile parameter is only required if acquiring a Landsat product.

4.11.9.2 SCLI Tool Commands

The SCLI Tool provides the following options:

- 1. **Acquire Non Landsat products**. The acquire parameters must be passed to the tool via a file. The file format is very specific, it is listed below.
 - **-p parameterfile:** This file contains the request parameters for the Ftp Push.

FTP Push distribution: DDISTMEDIATYPE = FtpPush; DDISTMEDIAFMT = FILEFORMAT.

```
FTP Push parameters: FTPUSER = <string>; FTPPASSWORD = <string>; FTPHOST = <string>; FTPPUSHDEST = <string>
```

User Profile: ECSUSERPROFILE = <\$string>.

Request Priority: PRIORITY = HIGH | VHIGH | NORMAL | LOW | XPRESS.

E-Mail notification: DDISTNOTIFYTYPE = MAIL; NOTIFY=<email address>.

Request identification: USERSTRING=<PDS-originalrequestID>.

- **-t Tag:** The user/PDS populates the SCLI tag parameter with a unique request identification that is re-used when a request is re-submitted because of a fault.
- **-f file:** The user/PDS includes a file list up to 100 granules to be acquired in a format conformant with Section 4.4.1.2 (Package_ID item) of the Interface Control Document Between EOSDIS Core System (ECS) and the Earth Resources Observation System (EROS) Data Center (EDC), 209-CD-031-00. Example: "SC:L70RWRS.001:2000022933"
- 2. **Acquire Landsat products.** A request for subsetted Landsat products is defined by the presence of the subsetting parameters filename in the command line. The desired Scenes must be passed to the tool via the subsetting parameters file. The file format is very specific, it is listed below.
 - **-b subsetparmfile:** PDS passes the SCLI subsetting parameters to specify the bands to be included and the polygon defining the spatial region to which the granule is to be subsetted. The format is modeled after the ACQUIRE parameters.

```
PolygonLatVector =
{
    Latitude = 79.6443;
    Latitude = 78.4660;
    Latitude = 74.8875;
    Latitude = 75.7831;
}
PolygonLonVector =
{
    Longitude = 159.2251;
    Longitude = 165.1426;
    Longitude = 151.5611;
    Longitude = 146.1926;
}
BandFilesIncluded =
{
```

```
Band = "QA_BAND1_PRESENT";
Band = "QA_BAND2_PRESENT";
Band = "QA_BAND3_PRESENT";
Band = "QA_BAND4_PRESENT";
Band = "QA_BAND5_PRESENT";
Band = "QA_BAND6_PRESENT_F1";
Band = "QA_BAND6_PRESENT_F2";
Band = "QA_BAND7_PRESENT";
Band = "QA_BAND8_PRESENT";

Band = "QA_BAND8_PRESENT";
}
```

4.11.9.3 Required Operating Environment

For information on the operating environment, tunable parameters, and environment variables refer to the 920-TDA-022 "Custom Code Configuration Parameters" documentation series.

4.11.8.3.1 Interfaces and Data Types

Table 4.11.9-2 lists the supporting products this tool depends upon to function properly.

Table 4.11.9-2. Interface Protocols

Product Dependency	Protocols Used	Comments
Perl	Perl scripts	

4.11.9.4 Databases

None.

4.11.9.5 Special Constraints

None.

4.11.9.6 Outputs

The SCLI.log file contains error and event messages.

4.11.9.7 Event and Error Messages

The SCLI issues error messages, which are reported to the script's error log.

4.11.9.8 Reports

None.

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4.11.10 Spatial Subscription Server GUI

The Spatial Subscription Server (NBSRV) GUI provides an operator the interface to place a standing order (hereinafter called "subscription") on an ECS event. Specifically, the NBSRV GUI provides the following capabilities:

- List the types of subscribed events
- Add a subscription with an action for distribution of standard ECS products from the ECS archive holding or email notification. The subscription can be qualified with spatial, temporal, integer, string and floating point qualifiers
- Associate a Data Pool insert action with a subscription
- Associate a Data Pool theme with a Data Pool insert action
- List the subscriptions, which have been previously entered
- View, Update and Delete an existing subscription
- Suspend and Resume an existing subscription
- Suspend, resume, or delete the subscriptions associated with a Data Pool theme
- Add, update, or cancel a bundling order
- Associate a bundling order with a subscription
- List the bundling orders associated with a user
- List the subscriptions associated with a bundling order
- Determine the number of subscribed events left to dequeue
- Determine the number of actions left to dequeue
- List the status of email notification and distribution actions in the action queue
- List statistics relating to Spatial Subscription Server performance

4.11.10.1 Quick Start Using the Spatial Subscription Server GUI

Pre-conditions:

- Javascript must be enabled for the Web Browser
- The designated size of the Web Browser cache should be at least 5000 kbytes for Disk and Memory cache

Consult with your Web Administrator, if you have any problems verifying or setting these parameters.

Bring up a Web Browser and then access the URL for the NBSRV GUI web page.

For example, http://yourserver.domain/NBSRV.html.

4.11.10.1.1 NBSRV Home Page

The NBSRV Home Page screen, shown in Figure 4.11.10-1 allows the operator to navigate to the List Events, Manage Subscriptions, Monitor Queues and Help pages. See Table 4.11.10-1 for a brief description of the functions.

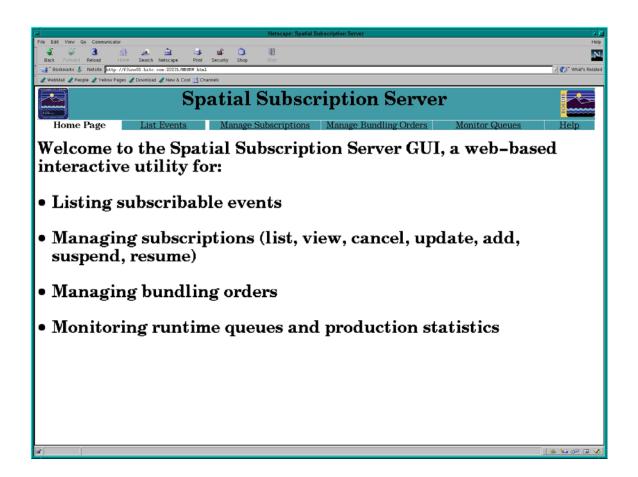


Figure 4.11.10-1. NBSRV Home Page

Table 4.11.10-1. Spatial Subscription Server (NBSRV) GUI Operator Functions

GUI/Command	Description	When and Why to Use
List Events tab	View the types of subscribed events.	If operator needs to view ECS events before entering a subscription.
Manage Subscriptions tab	List, view, add, cancel and update subscriptions.	If operator needs to view, add, change, suspend, resume or delete subscriptions.
Manage Bundling Orders tab	List, view, add, cancel and update bundling orders.	If operator needs to view, add, change, cancel bundling orders or list the subscriptions for a bundling order.
Monitor Queues tab	View action queue or statistics relating to Spatial Subscription Server performance.	If operator needs to view statistics or look at the action queue.
Help tab	Describes the NBSRV GUI functions.	If operator needs help in navigating through the NBSRV GUI.

4.11.10.1.2 List Events Tab

The List Events screen shown in Figure 4.11.10-2 allows the operator to view the subscribed events in the ECS. The operator can sort the list by Collection, EventType or Version by clicking on the **Collection**, **Version** or **Event Type** link. The operator can also filter the list by any combination of Collection, Version and EventType. After selecting the filtering criteria from the pull-down list(s), click on the **Filter** button.

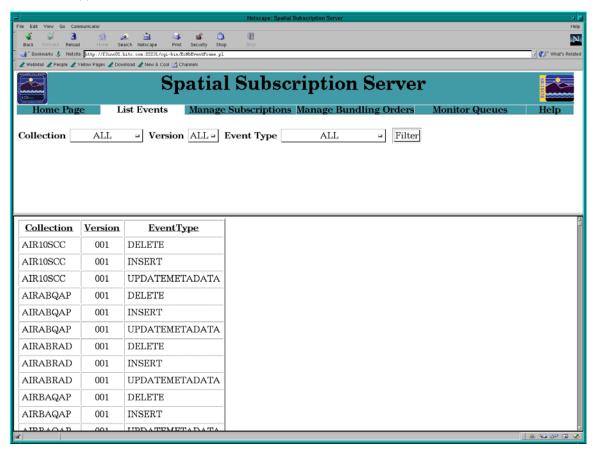


Figure 4.11.10-2. Spatial Subscription Server – List Events

4.11.10.1.3 Manage Subscriptions Tab

The Manage Subscriptions screen shown in Figure 4.11.10-3 allows the operator to list the subscriptions in the NBSRV database. The list can be sorted by clicking on the **Subscription Id**, **User**, **Collection**, **Status**, or **Expiration Date** link. The operator can also filter the list by any combination of User, Collection and Status. After selecting the filtering criteria from the pull-down list(s), click on the **Filter** button.

The operator can view the contents of a subscription by clicking on the **View** button associated with that subscription and pressing the **Apply** button. This takes the operator to the screens shown in Figures 4.11.10-4 and 4.11.10-5.

The operator can delete a subscription by clicking on the **Delete** button associated with that subscription and pressing the **Apply** button. This takes the operator to the deletion confirmation screen shown in Figure 4.11.10-6. If the operator clicks on the **Yes** button, the screen shown in Figure 4.11.10-7 is displayed. If the operator clicks on the **No** button, the screen shown in Figure 4.11.10-8 is displayed.

The operator can update a subscription by clicking on the **Update** button associated with the subscription and pressing the **Apply** button. This takes the operator to the screens in Figures 4.11.10-9 thru 4.11.10-14.

The operator can add a new subscription by clicking on the **Add Subscriptions** tab. This takes the operator to the screens in Figures 4.11.10-15 through 4.11.10-21.

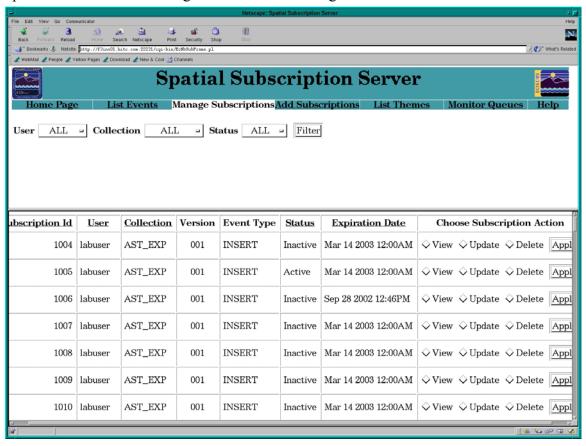


Figure 4.11.10-3. Manage Subscriptions: List of All the Subscriptions in the NBSRV Database.

Table 4.11.10-2. ECS Operator Functions Performed with the Spatial Subscription Server (NBSRV) GUI.

GUI/Command	Description	When and Why to Use
List Events tab	View the types of subscribed events.	If an operator needs to view ECS events before entering a subscription.
Manage Subscriptions tab	List, view, add, cancel or update subscriptions.	If an operator needs to view, add, change, suspend, resume or delete subscriptions.
Add Subscriptions tab	Add a new subscription.	If an operator needs to add a new subscription.
List Themes tab	Displays a list of themes defined in the Data Pool that are enabled for insert.	The operator can list the themes prior to selecting one and viewing its associated subscriptions.
Monitor Queues tab	View action queue or statistics relating to Spatial Subscription Server Performance.	If operator needs to view statistics or look at the action queue.
Help tab	Describes the NBSRV GUI functions.	If operator needs help in navigating through the NBSRV GUI.

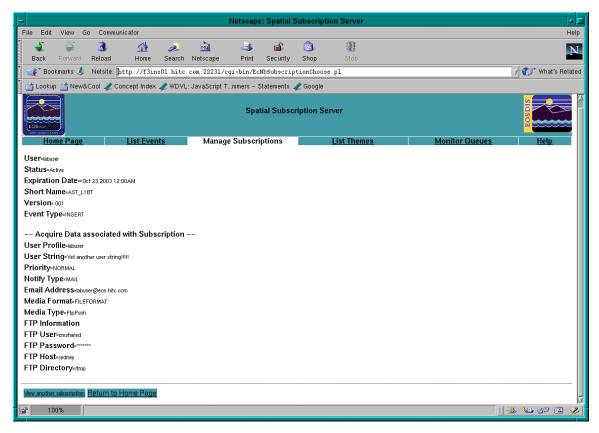


Figure 4.11.10-4. View Contents of a Subscription in the NBSRV Database

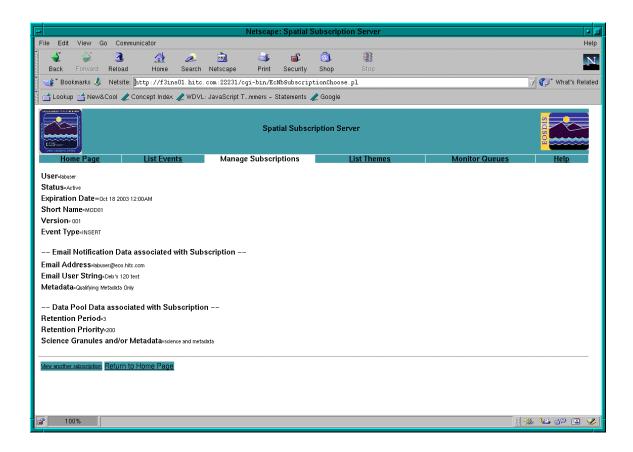


Figure 4.11.10-5. View Contents of a Subscription with Associated Email Notification Action (Continuation)



Figure 4.11.10-6. Delete Subscription Confirmation Request

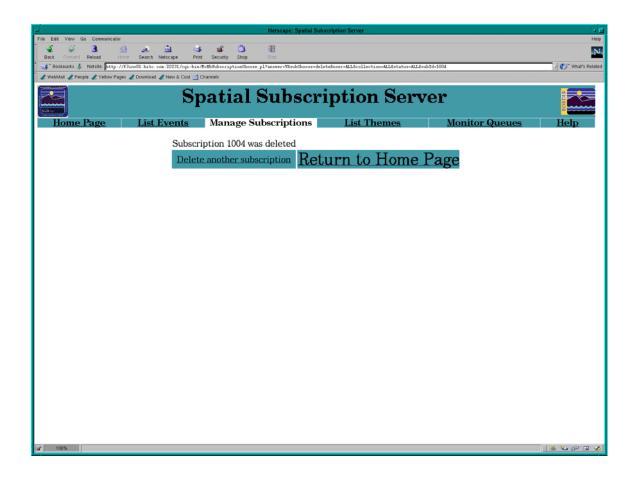


Figure 4.11.10-7. Delete Subscription Confirmation Acknowledgement

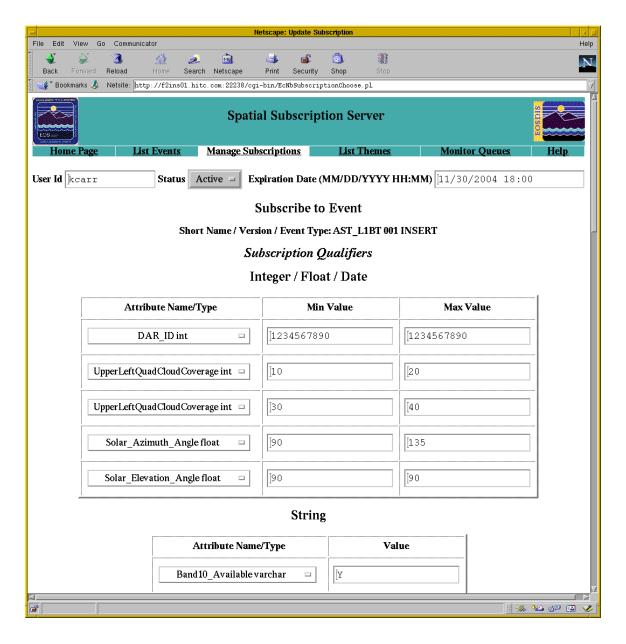


Figure 4.11.10-8. Update a subscription in the NBSRV Database

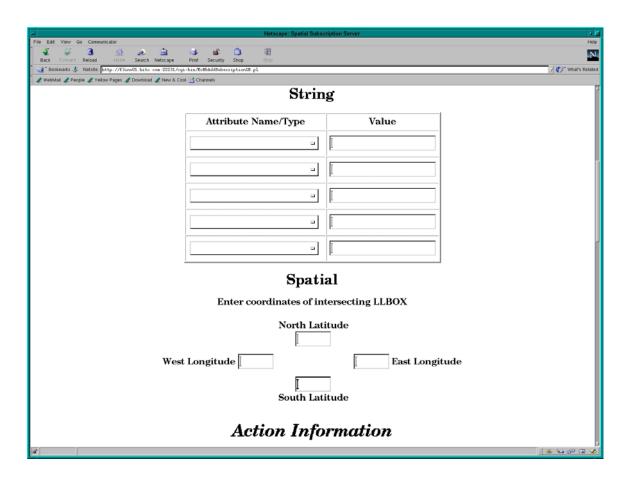


Figure 4.11.10-9. Update a Subscription in the NBSRV Database (Continuation to Add or Modify String or Spatial Qualifiers Associated with an Existing Subscription)

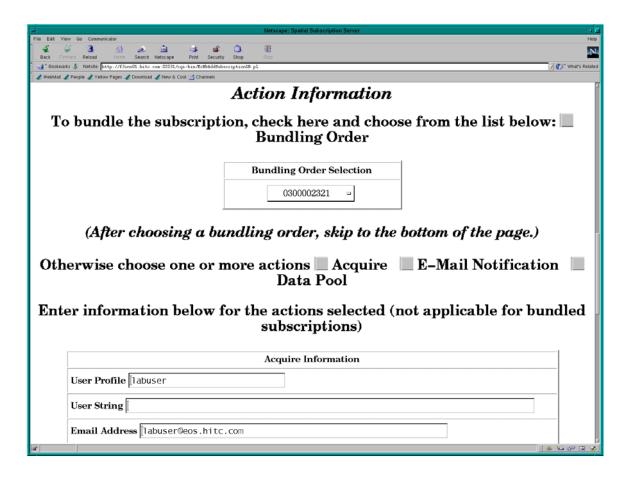


Figure 4.11.10-10. Update a Subscription in the NBSRV Database (Continuation to Add or Update Action Information for an Existing Subscription)

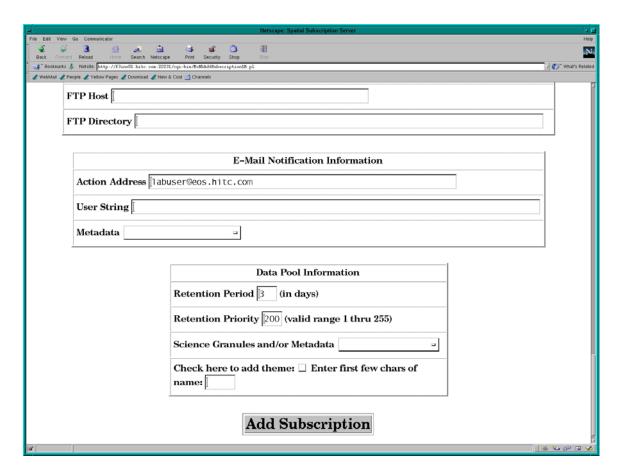


Figure 4.11.10-11. Update a Subscription in the NBSRV Database (Continuation to Update Email Action Information, Data Pool Information, or the Bundling Order Selection for an Existing Subscription.

Note: The operator must click on the Update Subscription button to initiate the updating of a subscription.

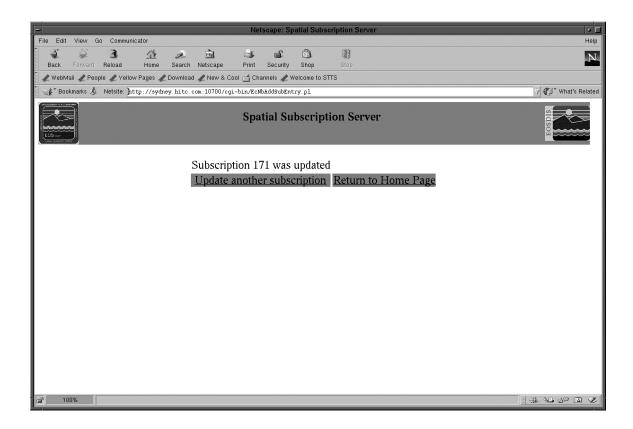


Figure 4.11.10-12. Update Confirmation Screen (Confirms Successful or Unsuccessful Updating of the Subscription)

Note: If invalid or missing data is detected for the subscription, the errors are displayed to the operator for correction. If a theme was to be associated with a data pool action, the screen appears as in Figure 4.11.10-13.

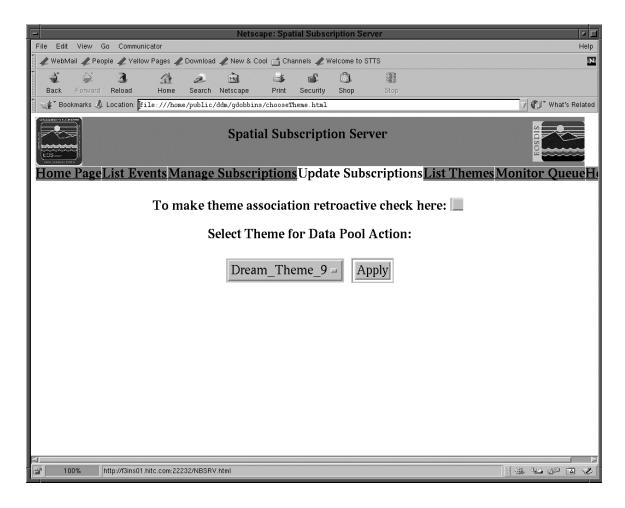


Figure 4.11.10-13. Data Pool Action Associated with a Theme (Alternative to Update Confirmation Screen Figure 4.11.10-10)

Note: The user first indicates whether the association is to be retroactive. Retroactive means that any granules already in the Data Pool due to the subscription being updated are associated with the theme. The user then selects a theme from the pull-down list and clicks on Apply. The screen in Figure 4.11.10-12 is displayed, signaling a successful update.

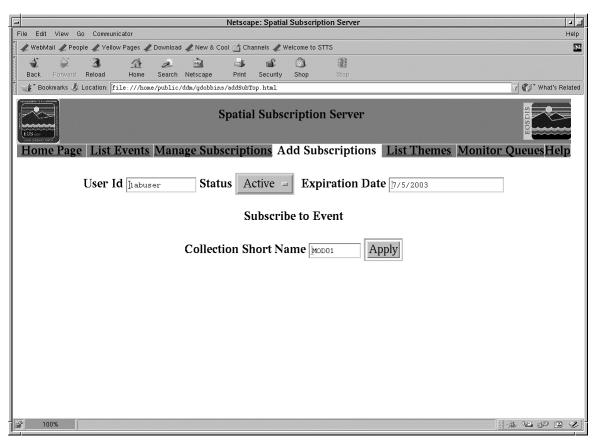


Figure 4.11.10-14. Add a New Subscription for a Valid ECS User

Table 4.11.10-3. Add Subscriptions Screen Field Description

Field Name	Data Type	Size	Entry	Description
User Id	Character	14	Required	Allows the operator to enter a valid ECS user.
Status	N/A	N/A	Required, selection from dropdown list	Allows the operator to select 'Active' or 'Inactive'. Normally, the operator chooses 'Active'. 'Inactive' means the subscription exists but has been temporarily suspended. The default value for the status field is 'Active.'
Expiration Date	Date/Time	12	Required	Allows the operator to enter the date on which the subscription expires. The default is one year from the current date (although this is configurable).
Collection Short Name	Character	10	Optional	Allows the operator to enter the first few characters of the Collection for the subscribed event. If left blank, all Collections are retrieved. The operator must click on the APPLY button to obtain a pull-down list of collection, version and event type combinations.

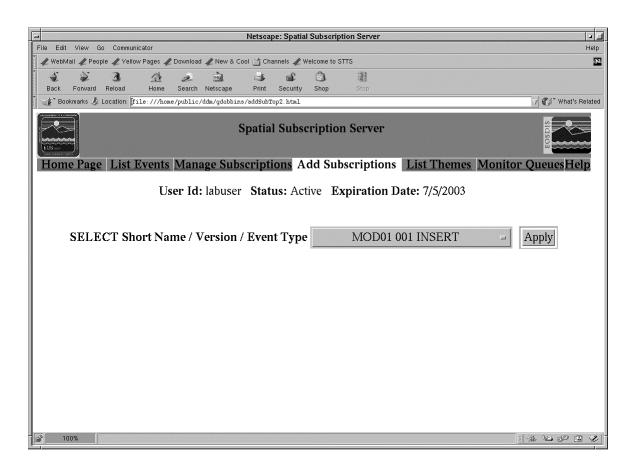


Figure 4.11.10-15. Event Selection (Continuation of Figure 4.11.10-14)

Note: This screen depicts the operator selecting the 'MOD01 001 INSERT' event from the pull-down list.

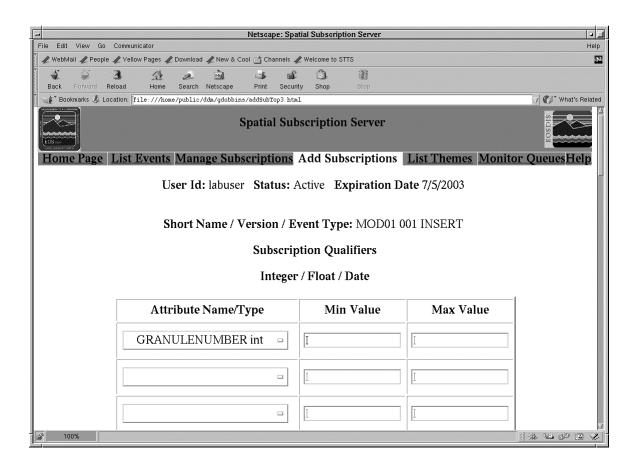


Figure 4.11.10-16. Add Subscription Continuation Information

Note: This screen is displayed after the operator clicks on the Apply button in Figure 4.11.10-15. It depicts the operator adding an integer qualifier to the new subscription.

Table 4.11.10-4. Add Subscriptions Screen (Continued) Field Description

Field Name	Data Type	Size	Entry	Description
Attribute Name/ Type	N/A	N/A	Optional, selection from drop-down list	Allows the operator to select Integer, Float or date qualifier. Note that only attributes associated with the current collection are displayed. If the measured Parameter QAPercentCloudCover is valid for the Collection and the operator elects to qualify on it as part of the subscription, a pop-up window is displayed requesting the operator to enter a valid parameter name for the attribute.
Min Value	Character	20	Optional	Allows the operator to enter valid minimum value for the qualifier selected.
Max Value	Character	20	Optional	Allows the operator to enter valid maximum value for the qualifier selected. For exact matching, enter the same value for the minimum and maximum.

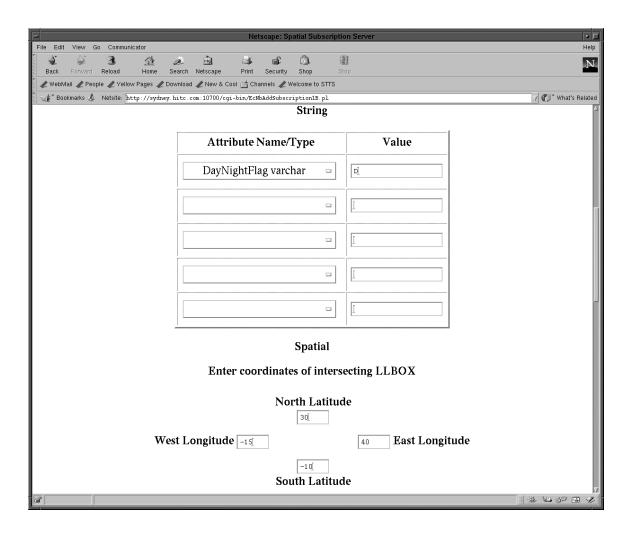


Figure 4.11.10-17. Add Subscription screen Continuation (Adding String and Spatial Qualifiers)

Table 4.11.10-5. Add Subscriptions (Continued) Field Description

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Field Name	Data Type	Size	Entry	Description	
Attribute Name / Type	N/A	N/A	Optional, selection from drop-down list	Allows the operator to select String qualifier.	
Value	Character	20	Optional	Allows the operator to enter a valid string value for the qualifier selected.	
Lat/Long Coordinates	Character	6	Optional	Allows the operator to define the latitude and longitude coordinates for an intersecting LLBOX. The coordinates are entered in degrees.	

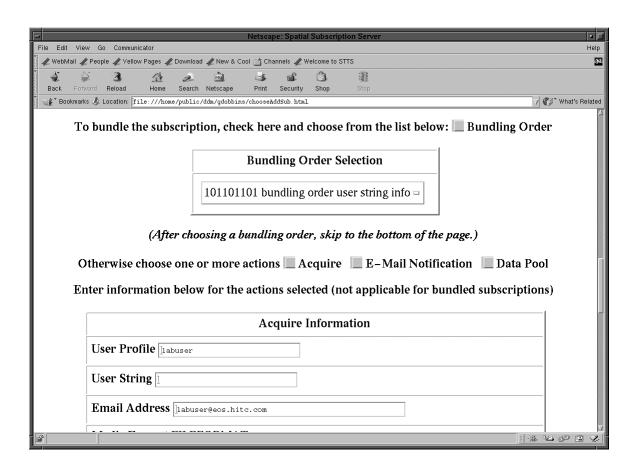


Figure 4.11.10-18. Add Subscription Screen Continuation (Bundling Order)

Table 4.11.10-6. Add Subscriptions (Continued) Field Description (1 of 2)

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Field Name	Data Type	Size	Entry	Description
User Profile	Character	30	Required, for Acquire	This defaults to the User Id from the Add Subscriptions form and must correspond to a user profile already entered in the MSS accounting database.
User String	Character	30	Optional, for Acquire	A secondary qualifier used to distinquish this request from others with the same user profile. The user string appears in the distribution notice.
Email Address	Character	50	Required, for Acquire	The e-mail address used by the Data Distribution Server for e-mail notification of the "acquire." NOTE: a granule is distributed at most once to a given email address, regardless of the number of matching subscriptions.
Media Format	N/A	N/A	Required, for Acquire	The format of the Media. The only default value is FILEFORMAT.

Table 4.11.10-6. Add Subscriptions (Continued) Field Description (2 of 2)

Field Name	Data Type	Size	Entry	Description
Media Type	N/A	N/A	Required, for Acquire	The type of the Media. The valid values are FtpPull and FtpPush. The default value is FtpPush.
Priority	N/A	N/A	Required, for Acquire	The distribution priority of the "acquire." The valid values are VHIGH, HIGH, NORMAL, LOW and XPRESS. The default priority value is the distribution priority in the user profile of the userid associated with the subscription.
Notify Type	N/A	N/A	Required, for Acquire	The method of notification for the "acquire." The only default value is MAIL.
FTP User	Character	30	Optional, for Acquire	The Unix login ID of the FTP recipient. Required for FtpPush only.
FTP Password	Character	16	Optional, for Acquire	The Unix password for the FTP recipient. Required for FtpPush only.
FTP Password Verification	Character	16	Optional, for Acquire	The Unix password verification for the FTP recipient. Required for FtpPush only.
FTP Host	Character	80	Optional, for Acquire	The Unix hostname of the FTP recipient. Required for FtpPush only.
FTP Directory	Character	80	Optional, for Acquire	The pathname of the Unix directory where the acquired files are to be stored. Required for FtpPush only .

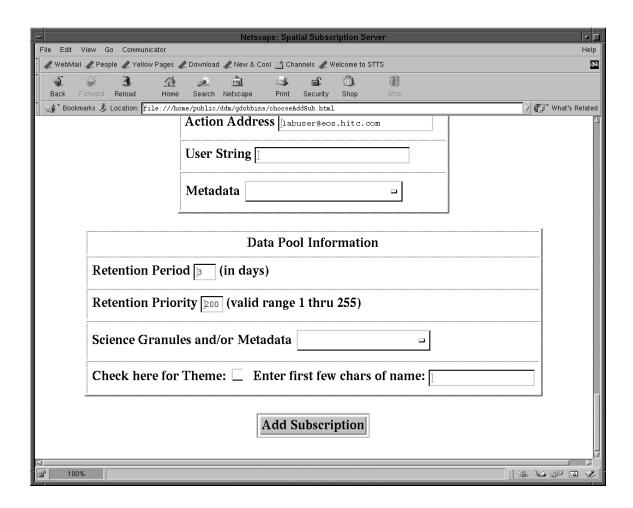


Figure 4.11.10-19. Add Subscription Screen Continuation (Information for the Email Notification or Data Pool Actions)

Note: A data pool action may be associated with a theme by clicking the theme box. The theme is chosen in the next screen. The operator can optionally enter the first few characters of the theme name to shorten the list of possibilities. The operator must click on the Add Subscription button to initiate the addition of the subscription to the NBSRV database.

Table 4.11.10-7. Add Subscriptions (Continued) Field Description

Field Name	Data Type	Size	Entry	Description
Action Address	Character	255	Required for Notify	The email address of the registered ECS user associated with the subscription.
User String	N/A	N/A	Optional, for Notify	The user string to be included in the message text for each email notification.
Metadata	N/A	N/A	Required, for Notify	Allows the operator to include names and values for all metadata attributes or only include names and values for the metadata attributes associated with the subscription qualifiers in the email notification text. The valid values are Qualifying Metadata Only and All Metadata.
Retention Period	Integer	4	Required	The retention period, in days, in the Data Pool. Default value is 3 days.
Retention Priority	Integer	4	Required	The retention priority in the Data Pool. Default value is 200.
Science Granules and/or Metadata	Enumerati on	1	Required	Indicates whether the granule and its metadata are to be inserted into the Data Pool or just the metadata.
Associated Theme	Character	40	Optional	Theme associated with the subscription.
Bundling Order	Character	10	Optional	Associates the subscription with a previously defined bundling order. The pull-down list displays the bundling order ID followed by its user string, if defined.

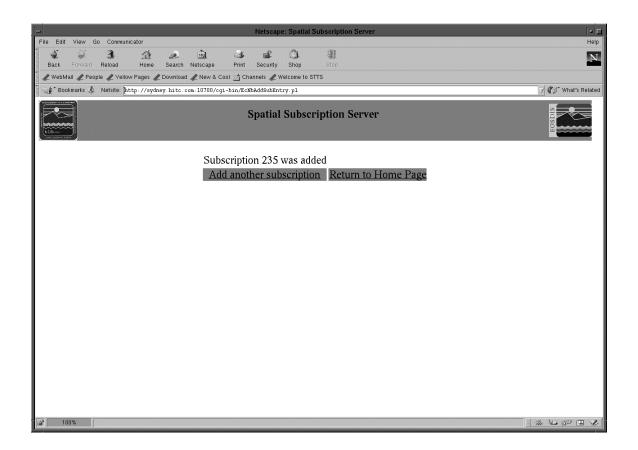


Figure 4.11.10-20. Add Confirmation Screen (Confirms Successful or Unsuccessful Adding of the Subscription)

Note: If invalid or missing data is detected for the subscription, the errors are displayed to the operator for correction.

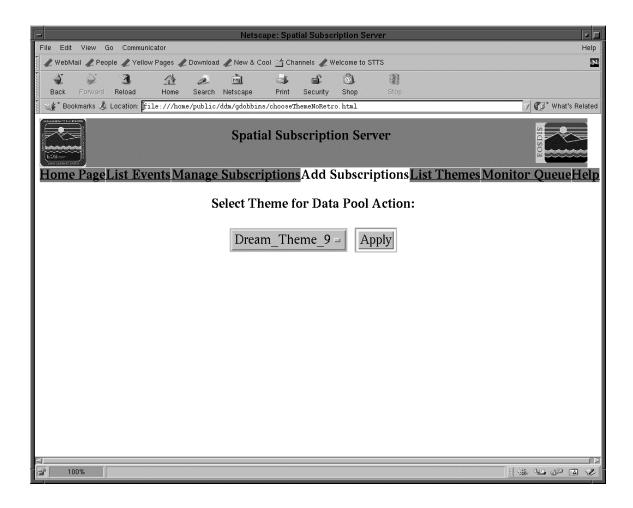


Figure 4.11.10-21. Data Pool Action Associated with a Theme (Alternative to Add Confirmation Screen Figure 4.11.10-20)

Note: The operator selects a theme name from the pull-down list and clicks on the Apply button. Confirmation that the subscription was successfully added appears as in Figure 4.11.10-20. Note: The subscription is actually created prior to displaying this screen, and the association of the theme with the subscription is implemented as an update operation.

4.11.10.2 Spatial Subscription Server Main Screen

See Section 4.1.1.1.

4.11.10.3 Required Operating Environment

This following environment is required for the NBSRV GUI to work properly.

O/S requirements are Solaris 2.5.1 or better, or SGI IRIX 6.5 or better.

4.11.10.4 Databases

The NBSRV GUI accesses the NBSRV, Science Data Server, Data Dictionary and MSS Accountability Service databases.

The NBSRV GUI exchanges data between the Web Browser and Sybase, using Perl CGI and DBI Modules for the interface.

4.11.10.5 Special Constraints

There are no special constraints to running the NBSRV GUI.

4.11.10.6 Outputs

There are no other outputs from the NBSRV GUI, except for status and error messages.

4.11.10.7 Event and Error Messages

The NBSRV GUI issues client side validation errors when adding or modifying a subscription. If the operator does not correct the validation errors, the subscription is rejected when the operator attempts to add or update the subscription. The NBSRV GUI writes status and error messages to the EcNbGUI.log file in the directory /usr/ecs/<MODE>/CUSTOM/logs.

4.11.10.8 Reports

The NBSRV GUI does not generate reports.